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1928.

QUEENSLAND.

ANNUAL REPORT

OF

THE COMMISSIONER OF PUBLIC HEALTH

TO

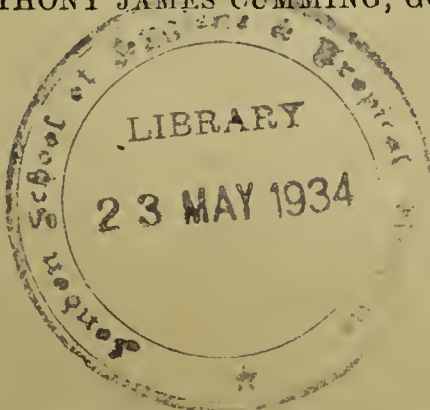
30TH JUNE, 1928.

PRESENTED TO PARLIAMENT BY COMMAND.

BRISBANE :

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ANNUAL REPORT OF THE COMMISSIONER OF
PUBLIC HEALTH,
1927-1928.

TO THE ASSISTANT UNDER SECRETARY, HOME SECRETARY'S DEPARTMENT.

Brisbane, 22nd August, 1928.

SIR,—I have the honour to submit the following particulars regarding the work carried out by this Department during the twelve months ended the 30th June, 1928, as well as my comments regarding Public Health administration for the State of Queensland

CRUDE BIRTH RATE.

Country.	Year.	Birth Rate.	Year.	Birth Rate.
Queensland	1926	22·58	1927	22·23
New South Wales	1926	22·89	1927	22·69
Victoria	1926	20·84	1927	20·30
South Australia	1926	20·55	1927	20·12
Western Australia	1926	22·14	1927	22·03
Tasmania	1926	23·62	1927	23·01
Commonwealth	1926	22·02	1927	21·67
New Zealand	1926	21·05	..	..
England and Wales	1925	18·3	1926	17·8
Scotland	1925	21·3	1926	20·9
Irish Free State	1925	19·6	1926	20·6
Canada	1925	22·6	1926	21·5
South Africa	1925	26·5	1926	26·2

DEATH RATE.

Country.	Year.	Death Rate.	Year.	Death Rate.
Queensland	1926	9·39	1927	9·06
New South Wales	1926	9·55	1927	9·59
Victoria	1926	9·63	1927	9·71
South Australia	1926	8·73	1927	8·98
Western Australia	1926	8·93	1927	8·81
Tasmania	1926	9·05	1927	9·68
New Zealand	1926	8·74	..	..
England and Wales	1925	12·2	1926	11·6
Scotland	1925	13·4	1926	13·0
Irish Free State	1925	13·8	1926	14·1
Canada	1925	9·7	1926	11·4
South Africa	1925	9·4	1926	9·5

RATES OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Country.	Year.	Death Rate per 1,000 Births.	Year.	Death Rate per 1,000 Births.
Queensland	1926	50·4	1927	54·5
New South Wales	1926	57·6	1927	54·9
Victoria	1926	55·7	1927	56·1
South Australia	1926	44·6	1927	53·4
Western Australia	1926	49·3	1927	45·9
Tasmania	1926	46·7	1927	53·0
New Zealand	1926	39·8	..	..
England and Wales	1925	75·0	1926	70·0
Scotland	1925	91·0	1926	83·0
Irish Free State	1925	71·0	1926	74·0
Canada	1925	79·0	1926	79·0
South Africa	1925	68·0	1926	68·0

STATISTICAL.

The above tables show no appreciable difference to last year's figures, but, in comparison with the other States, Queensland still maintains a favourable record. However, in respect to the infantile mortality rate, the result is not as satisfactory as that for the previous year. Infantile mortality, while gradually falling, has shown many rises and falls and this year's rise may be attributed to an epidemic of diarrhœal disorders. Flies play an important part in the

spread of these ailments, but they can be minimised by strict compliance with the regulations dealing with the collection and disposal of nightsoil, which the inspectors of this Department, as well as Local Authorities' officers, are endeavouring to have carried out.

It is hoped that the increased activities of the Maternity and Child Welfare organisations in this State will do much towards lowering the infantile mortality during the coming year.

			Persons.
Estimated population for calendar year 1927	..	..	899,176
Estimated population for calendar year 1926	..	..	882,193
Estimated mean population for calendar year 1927	..	..	891,908
Estimated mean population for calendar year 1926	..	..	875,187

COMMUNICABLE DISEASES
(Exclusive of Venereal Diseases).

Metropolitan Area.

(Notifiable under the Ordinances of the Brisbane City Council.)

Diseases.	1926-27.	1927-28.
Anchylostomiasis .. ..	..	..
Amoebic Dysentery .. ..	..	1
Cerebro-spinal Meningitis	7	3
Diphtheria	837	715
Dysentery .. ..	..	7
Encephalitis Lethargica .. ..	..	1
Erysipelas	63	62
Infantile Diarrhoea .. ..	..	30
Infantile Paralysis	9	1
Malaria .. ..	..	..
Membranous Croup .. ..	..	..
Meningitis .. ..	..	2
Puerperal Fever	20	17
Puerperal Pyrexia .. ..	..	5
Pulmonary Tuberculosis	230	175
Relapsing or Continued Fever .. ..	..	..
Sapraemia .. ..	..	1
Scarlet Fever	361	428
Typhoid Fever	72	43
Total	1,599	1,491

Outside Areas.

Diseases.	1926-27.	1927-28.
Anchylostomiasis .. ..	..	4
Brills Disease (gazetted notifiable 23-12-27) .. ..	..	10
Cerebro-spinal Meningitis	6	8
Diphtheria	1,361	1,144
Dysentery (Thursday Island)	13	2
Encephalitis Lethargica (gazetted notifiable 23-12-27) .. ..	..	2
Erysipelas	27	26
Infantile Paralysis	6	3
Malaria	1	1
Membranous Croup .. ..	..	1
Phthisis (Pulmonary Tuberculosis)	178	177
Puerperal Fever	9	14
Puerperal Pyrexia (gazetted notifiable 23-12-27) .. ..	..	5
Scarlet Fever	470	417
Typhoid Fever	221	77
Typhoid group (Cairns only) .. ..	..	25
Typhus Fever (Glenallan area, same house), probably Brill's Disease .. ..	..	2
Totals	2,297	1,918

DIPHTHERIA.

The incidence of diphtheria in outside areas shows a decrease of 15.9 per cent., and in the metropolitan area of 14.5 per cent. over last year's figures.

Close adherence to the provisions of the Diphtheria Regulations is maintained, and by so doing the segregating of carriers as well as cases in all probability has been the means of keeping the disease in check.

The Department of Public Instruction has rendered much assistance in the swabbing of school children. Bacteriological examination of specimens submitted by the Department has materially assisted in detecting cases and carriers among the pupils.

The Chief Medical Officer (Dr. Leslie St. Vincent Welch) has greatly co-operated with this Department in the matter of the checking and suppression of diseases among school children, and for the period under review has furnished the following particulars:—

Scarlet Fever cases dealt with	387
Diphtheria cases dealt with	871
Number of schools swabbed	43
School children swabbed	6,465
Carriers detected	355

During the campaign in this State of free active immunisation against diphtheria, advocated by the late Commissioner of Public Health, amongst other Local Authorities the City of Bundaberg began inoculating children with toxin antitoxin on 17th January, 1928. The toxin antitoxin used was supplied by the Commonwealth Serum Laboratories, Melbourne, in indiarubber-capped bottles. No untoward effects resulted till 27th January, when of twenty-one children inoculated eighteen became ill and eleven died on 28th January and one on the 29th.

The Royal Commission that inquired into the fatalities found—

(1) The injections of toxin antitoxin mixture administered by Dr. Thomson at Bundaberg on 27th January, 1928, were responsible for the deaths of twelve out of twenty-one children inoculated and for the illness of several who survived.

(2) The toxin antitoxin mixture as issued by the Commonwealth Serum Laboratories was properly prepared and sterile, but contained no antiseptic and, therefore, did not prevent the growth of micro-organisms accidentally introduced into it.

(3) The rubber-capped bottle of toxin antitoxin supplied to Dr. Thomson at Bundaberg was accompanied by no information as to the presence or absence of antiseptic.

(4) The omission of antiseptic was intended to safeguard against the dangers attendant upon freezing, but the issue of this preparation without antiseptic in rubber-capped bottles suitable for repeated usage is an unsound procedure.

(5) The toxin antitoxin mixture in the bottle used by Dr. Thomson was contaminated by him with a pathogenic staphylococcus during a series of inoculations on 17th, 20th, 21st, and 24th January, most probably on the last occasion.

(6) The consideration of all the available evidence concerning the deaths at Bundaberg points to the injection of living staphylococci as the cause of the fatalities.

The outcome of this disaster has been that immunisation by toxin antitoxin has ceased throughout the State of Queensland, and for the present we are unable to make use of this well-tried and most effective method of controlling diphtheria.

TYPHOID FEVER.

The number of cases of typhoid fever notified from outside areas shows a decrease of 144, and in the Brisbane area of 29 from the figures for the previous year, and this may reasonably be attributed to the closer supervision exercised by certificated Health Inspectors who are now appointed in most of the areas throughout the State, their special duties being to enforce the provisions of the Sanitary Conveniences and Nightsoil Disposal Regulations, which provide for the installation of fly-proof cabinets, thus eliminating the danger of the spread of typhoid and other diseases transmitted by the fly.

These officers are specially qualified in carrying out preventive measures and thus greatly assist the Medical Officers of Health, especially in making inquiries that tend to the possible tracing of the cause of the disease, as well as locating carriers who are frequently the means of unknowingly spreading the disease.

An incident occurred during the year in the Cairns area where some twenty-five cases of the typhoid fever group were notified. When the outbreak first appeared the illness was reasonably supposed to be typhoid, but as it increased difficulty was experienced in locating its actual place in the typhoid group. Specimens were forwarded to the Tropical Institute, Townsville, but the surprising fact was that every test gave a negative result. So far, no definite decision has been given; the opinion is held that it is a strain of the typhoid group not yet classified.

The following report has been received from the Medical Officer of Health to the Local Authority.

The condition reported by me is as follows:—

Onset.—Frontal and occipital headache. Vomiting in about 25 per cent. of cases. Temperature when first seen 102 deg. to 103.6 deg. Fahr. Slight abdominal pain. The onset is sudden.

Symptoms.—Rash not detected. Temperature: Rise rapid, often to 104 deg. in a few

days. Pulse rate in the majority of cases has been under 100 per minute. Spleen: Enlargement in about 6 per cent. of cases.

Tympanitis slight and not present in majority of cases.

Diarrhœa not present.

Intestinal hæmorrhage in about 25 per cent. of cases.

Duration, three to seven weeks.

There is a marked variation in the severity of the cases, three deaths.

No cases since the first crop, which appeared over a period of about three weeks.

The sera and faeces were forwarded to the Tropical Institute, Townsville, with negative results.

Specimens from a post-mortem examination and further sera and faeces were forwarded, and the opinion was expressed that the condition was produced by an aberrant type of the *B. typhosus*.

The Director of the Institute visited Cairns and carried out further investigations and is still working on the material and data obtained.

The cases were few in number, and scattered over the town and coming from the homes of all classes.

Samples of milk were forwarded to the Institute without result.

PLAGUE.

No case of plague has occurred in the State during the year.

Special attention has been bestowed on all wharves where overseas shipping is moored, and river retaining walls are continually kept well baited with a phosphorous preparation made by this Department; as a consequence the number of rats usually to be found on such water frontages is kept well in check. Some of the Harbour Boards materially assist in this direction.

Bacteriological examination of rodents is carried out at approved Laboratories at the principal centres throughout the State.

All Government buildings in the Brisbane area are attended to, in respect to rat eradication, by the Department's gang.

The Brisbane City Council has its own rat gang to attend to the city area, but all rats destroyed are sent to this Department's Laboratory for examination, where specimens are taken for bacteriological investigation.

The number of rats and mice submitted for examination for the year was 46,784.

PULMONARY TUBERCULOSIS.

During the year the Part-time Medical Officer carried out his duties in a satisfactory manner. Patients were carefully examined by that officer, and during the year under review thirteen persons were, on his recommendation, admitted to Dalby Sanatorium and eleven to the Diamantina Hospital for Incurables.

Persons suffering from pulmonary tuberculosis who seek admission to Government Institutions are referred to the Medical Officer for examination, and his report determines which of the institutions they are eligible to enter.

VENEREAL DISEASES.

During the period covered by this report, 1,508 cases of venereal disease were notified by medical practitioners throughout the State, and of these 135 were duplicated, the actual number of patients was thus 1,373 as against 1,319 last year—1,401 for 1925-26, and 1,503 for 1924-25.

Disease.	METROPOLITAN AREA.				OUTSIDE METROPOLIS.				TOTAL.	
	July 1-Dec. 31.		Jan. 1-June 30.		July 1-Dec. 31.		Jan. 1-June 30.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Gonorrhœa	271	49	255	70	163	40	201	41	890	200
Syphilis	38	11	53	7	52	7	26	8	169	33
Secondary Syphilis	20	8	9	1	2	2	1	2	32	13
Gonorrhœa and Syphilis	2	..	4	1	1	..	1	..	8	1
Gonorrhœa and Secondary Syphilis	2	..	1	1	..	..	..	..	3	1
S. Chancre	3	..	..	..	1	..	1	..	5	..
Syphilis and Soft Chancre .. .. .	..	..	1	..	..	..	..	..	1	..
Venereal Warts	2	1	..	..	..	..	..	..	2	1
Ulcerative Granuloma .. .. .	..	..	..	..	3	2	8	1	11	3
Totals'	338	69	323	80	222	51	238	52	1,121	252
<i>Duplicated and not entered above—</i>										
Gonorrhœa	20	7	18	5	26	5	27	4	91	21
Syphilis .. .. .	..	..	3	1	3	..	12	..	18	1
Secondary Syphilis	2	..	..	..	1	1	..	..	3	1
Total Duplicate Notifications received	22	7	21	6	30	6	39	4	112	23
Grand Total Notifications received during 1927-28	360	76	344	86	252	57	277	56	1,233	275

Aggregates—1,508 notifications ; 1,373 patients.

AGES OF PATIENTS NOTIFIED IN SEX GROUPS AND UNDER DISEASE HEADINGS.

(a) METROPOLITAN AREA.

Ages.	Gon.		Syph.		Sec. Syph.		Gon. & Syph.		Gon. & S. S.		Soft Chancre.		Syph. and Soft Chancre.		Ven. Warts.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Unknown or unobtainable	7	6	2	2	..	1	..	..	..	..	..	..	..	..	..	..	9	9
1- 5 .. .. .	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7
5-10 .. .. .	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8
10-15	3	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	3	3
15-20	56	19	6	2	2	..	2	..	..	..	..	..	..	..	..	..	66	21
20-25	154	41	23	5	3	2	..	..	2	..	..	..	..	..	1	1	183	49
25-30	132	20	21	3	4	2	2	..	..	2	..	..	..	..	1	..	162	25
30-35	63	8	14	4	4	1	1	..	1	..	..	..	..	..	..	..	83	13
35-40	47	5	10	..	8	1	..	1	..	1	1	..	..	..	..	..	66	8
40-45	23	1	6	..	5	1	..	..	..	..	..	..	1	..	..	..	35	2
45-50	16	1	6	1	1	..	..	..	..	..	..	..	..	..	..	..	23	2
50-55	10	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	13	1
55-60 and over.. .. .	15	..	2	..	..	1	1	..	..	..	..	..	..	..	..	..	18	1
Total	526	119	91	18	29	9	6	1	3	1	3	..	1	..	2	1	661	149

(b) OUTSIDE METROPOLIS.

Ages.	Gon.		Syph.		Sec. Syph.		Gon. & Syph.		Soft Chancre.		V. Warts.		Ulc. Gran.		Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Unknown or unobtainable	32	19	1	1	..	1	..	..	..	..	..	..	1	2	34	23
1- 5 .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
5-10 .. .. .	..	3	1	..	..	..	..	..	..	..	..	..	1	..	2	3
10-15	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15-20	45	7	9	5	..	..	..	..	..	..	..	..	4	..	6	2
20-25	91	21	13	3	1	..	2	..	..	..	..	..	1	..	55	12
25-30	77	12	12	1	2	..	..	..	..	..	..	..	2	1	109	25
30-35	53	7	13	2	..	..	..	..	..	..	..	..	1	..	92	13
35-40	31	5	14	2	..	1	..	..	1	..	..	..	1	..	66	9
40-45	17	3	6	1	..	..	..	..	1	..	..	..	1	..	47	8
45-50	9	..	6	..	..	1	..	..	1	..	..	..	..	..	24	4
50-55	4	1	1	..	..	1	..	..	..	..	..	..	..	..	15	1
55-60 and over	3	..	2	..	..	..	..	..	..	..	..	..	..	..	5	2
	364	81	78	15	3	4	2	..	2	..	..	..	11	3	460	103

STATED SOURCES OF INFECTION.

Sources of Infection.	AREA.		Totals.
	Metro-politan.	Outside Areas.	
Prostitutes from houses ..	43	20	63
Prostitutes unknown ..	154	127	281
Non-professional	279	93	372
Husbands	11	8	19
Wives	29	9	38
Unknown or unstated ..	271	292	563
Occupational	18	7	25
Other sources	4	7	11
Parents	1	..	1
33 infections attributed to sources outside State	810	563	1,373

SOURCES OF NOTIFICATION.

	Metro-polis.	Outside Metro-polis.	Totals.
Clinics	356	179	535
Private Doctors	367	295	662
Hospitals (other than Clinics)	87	89	176
Totals	810	563	1,373

MALE CLINIC, BRISBANE.

During 1927-28 356 venereal disease patients were notified from this clinic though, as will be noted hereunder, 629 new cases presented themselves for examination by the Medical Officers, of whom there are five on part-time duties.

Consultation hours remained as in 1926-27—i.e., 11.30 a.m. to 1 p.m. and 7 to 8 p.m. on Mondays to Fridays inclusive, and 9 to 10 a.m. on Saturdays, whilst the irrigation rooms were opened for three sessions daily from Mondays to Fridays inclusive, twice on Saturdays (morning and evening), and for an hour each Sunday and Public Holiday.

The 356 cases comprised—

Gonorrhœa	262
Syphilis	63
Secondary Syphilis	23
Gonorrhœa and Syphilis	4
Gonorrhœa and Secondary Syphilis ..	2
Venereal Warts	2

356

In addition, 17 gonorrhœal and 6 syphilitic cases who had been treated and notified by other medical practitioners were reported, and the balance of the callers—i.e., 250—were undiagnosed or suffering from conditions other than venereal,

Summary of Work carried out at Male Clinic, Brisbane, 1st July, 1927, to 30th June, 1928.

Consultations (a.m. 2,912, p.m. 5,234) ..	8,146
New cases	629
Bloods taken for W.R.	525
Smears taken	1,921
Neosalvarsan administered	1,230
Muthanol administered	676
Bismol administered	106
Vaccine—Commonwealth Serum Laboratory, mixed, administered	471
Prescriptions dispensed by Departmental part-time chemist	3,196
Massages	5,584
Irrigations	39,636
Seamen's cards issued to oversea sailors under Quarantine Regulations ..	13
Certificates of cure or apparently free from disease issued	189
Certificate of cure received from medical practitioner in country for clinic case	1

At 30th June, 1928, there were 309 patients on the clinic records as against 333 at 1st July, 1927, *vide* following comparative table:—

	1927-8.	1926-7.
Gonorrhœa	148	163
Syphilis	74	27
Secondary Syphilis	38	31
Gonorrhœa and Syphilis	5	7
Gonorrhœa and Secondary Syphilis ..	4	1
Undiagnosed and Non-venereal ..	40	104
	309	333

It will be noted that though there were 24 less persons on the records than in the previous year, actually there were 40 more venereal disease patients under treatment at the close of the period under review.

FEMALE PATIENTS TREATED BY DEPARTMENTAL MEDICAL OFFICERS, BRISBANE.

During the period covered by this report 42 females called at the Department and availed themselves of the services of the Departmental Venereal Diseases Medical Officers. Of the number, 25 were found to be infected with venereal disease—i.e., gonorrhœa 22 (of whom one was previously notified), syphilis 1, and secondary syphilis 2.

Three certificates of cure (gonorrhœal) were received; 6 defaulters were notified on nine occasions and official forms G were issued to obtain compliance on each occasion; 1 who disobeyed the notice was fined £5 and costs for a breach of Venereal Disease Regulation 9.

BREACHES OF SECTION 162 (3) OF "THE HEALTH ACTS, 1900 TO 1922."

(a) Brisbane Clinic.

Three hundred and forty-one defaulters under this section of the Acts were notified from the clinic during the year, of whom 329 were written to; the remaining 12 names were forwarded to the Police Authorities, in view of an insufficient address being available in each instance.

A summary of the results of action taken in this connection follows:—

Letters to 329—

Results—

Reported back	158
Replies outstanding at 30th June, 1928..	21
Police asked to locate and warn ..	150
	<hr/>
	329

Names to Police—150 and 12 referred to above—162—

Results—

Warned and continued treatment ..	71
Ascertained to have left the State ..	8
Ascertained to have died	1
Not located	57
Outstanding at date of report	25
	<hr/>
	162

(b) *Defaulters from treatment notified from all sources outside male clinics.*

One hundred and thirty persons were notified under section 162 (3) of "*The Health Acts, 1900 to 1922*," by medical practitioners other than the officers of the Brisbane male clinic. Of these, 1 was shown as left Queensland and 2 were aborigines. The names of the latter were submitted to the Chief Protector of Aborigines, who was conducting inquiries at 30th June, 1928; 45 addresses were insufficient for postal purposes, and 82 letters were forwarded to the remainder inviting their attention to the requirements of the law, and asking an explanation for their non-compliance.

Summary of results of action.

Letters to	82
Reported for treatment ..	20
Produced certificates of cure ..	2
No replies and names to police accordingly	60
	<hr/>
	82

(A certificate of cure was received from a patient from whom advice was outstanding at the date of last report.)

Police action—

Referred for action .. 60 + 45 ..	105
Not traced	18
Warned and continued treatment	59
Left Queensland	11
Inquiries continuing at 30th June, 1928	17
	<hr/>
	105

It will be noted in last year's report, page 8, that 12 inquiries were not finalised by the Police. Reports to hand since 1st July, 1928, show that 4 were warned, 1 was found to have left Queensland, and 7 could not be located.

Summary of action taken regarding defaulters (notified under section 162 (3) of "The Health Acts, 1900 to 1922").

Total number notified.. .. .	471
Letters sent to	411
Police asked to warn	267

Results of action taken—

Resumed treatment or produced certificates of cure	310
Ascertained to have died	1
Ascertained to have left the State..	19
No trace found of	75
Replies awaited to letters at 30th June, 1928, from	21
Police action not finalised at 30th June, 1928.. .. .	42
No action taken in view of having left Queensland	1
Aboriginal Department had not traced	2
	<hr/>
	471

PROSECUTIONS.

The Crown Law Department was asked to take proceedings against 78 persons during the year for various breaches of the Venereal Diseases Regulations and sections of the Health Acts relating to venereal disease.

As will be noted, 34 of these cases were withdrawn after an undertaking had been received from the defendant to present him or her self for necessary examination, and 1 case was dismissed on a technicality.

From the appended table it will be seen that 61 offences were committed in Brisbane and 17 outside the metropolis.

Regulation 10 of the Venereal Diseases Regulations (failure by prostitute to report for medical examination as directed).

Brisbane.—

33 cases, of which 16 were withdrawn.

17 women fined £70 10s. and £2 16s. costs.

Outside areas.—

17 cases, of which 4 were withdrawn and

13 fined £48 5s. 6d. and £15 11s. 6d. costs.

Regulation 9 of the Venereal Diseases Regulations (failure to comply with official notice issued by Commissioner of Public Health).

Brisbane (only).—

6 cases, of which 2 against males and 2 against females withdrawn.

1 male and 1 female fined £5 and 7s. costs.

Section 162 (3), Health Acts, 1900-1922 (failure to report to medical practitioner within prescribed periods).

15 (males), of which 10 withdrawn and 5 fined £12 and 17s. 6d. costs.

Section 162 (1), Health Acts, 1900-1922 (unlawfully treating venereal diseases).

Brisbane (only).—

1 chemist (male); case dismissed on technicality; no costs allowed.

Section 168 (1), (4), Health Acts, 1900-1922 (occupier of or residing in a house frequented by prostitutes).

3 males and 3 females (Brisbane only), fined £85 and £8 8s. costs.

	£	s.	d.	£	s.	d.
Total fines imposed—						
Brisbane	172	10	0			
Outside areas	48	5	6			
				220	15	6
Costs allowed—						
Brisbane	12	8	6			
Outside areas	15	11	6			
				28	0	0
Total amount for State				248	15	6

Prisoners detained under section 164 (2) (c) of "The Health Acts, 1900 to 1922."

Twenty-one (21) males and five (5) females were detained for treatment under the above section of the Health Acts whilst serving civil sentences in H.M. Prisons. Four of the five women, all of whom were prostitutes, were transferred for treatment to the Venereal Isolation Hospital, Park road, South Brisbane.

Particulars of the cases are tabulated hereunder:—

Centre.							Number remaining on 30th June, 1927.		Admitted during period.		Discharged during period.		Remaining on 30th June, 1928.	
							M.	F.	M.	F.	M.	F.	M.	F.
Brisbane	..	..	..	..	..	..	2	..	18	5	17	5	3	..
Townsville	..	..	..	..	..	..	..	..	3	..	2	..	1	..
Totals	..	..	..	..	..	..	2	..	21	5	19	5	4	..

The diagnoses of the cases under notice were: Brisbane—Males 13 gonorrhœal, 3 syphilitic, and 2 non-gonorrhœal urethritis. Smears from these two and the five Brisbane women gave over 50 per cent. polymorphonuclear leucocytes results, which, for the purposes of section 164 of the Acts in question, is venereal disease. Two of the Townsville men were gonorrhœal and one syphilitic.

EXAMINATION AND TREATMENT OF PROSTITUTES.
(Regulation 10 of the Venereal Diseases Regulations and Section 164 (2) (a) and (b) of “The Health Acts, 1900 to 1922.”)

Brisbane (Examinations).

William street rooms—	
Examinations	812
Smears received from	2,436
Bloods (W.R.) received from ..	3

Brisbane (Treatment).

Venereal Isolation Hospital, Park road, South Brisbane—	
Admissions during 1927-28	70
Smears submitted during 1927-28 ..	1,440
Bloods for Wassermann reaction, 1927-28	23
Admissions included 14 non-prostitutes, 4 prostitutes transferred from Brisbane Gaol, and 20 prostitutes from centres outside the metropolis.	

Outside Metropolis.—At the fourteen centres outside Brisbane in which prostitutes are periodically examined, 16 of the women were detained for treatment as the result of 745 examinations, whilst another 20 were treated in the Venereal Isolation Hospital, South Brisbane, making a total for the year of 36. The centres in question are—Ayr, Bowen, Bundaberg, Cairns, Charters Towers, Cloncurry, Ingham, Innisfail, Longreach, Mackay, Mossman, Rockhampton, Toowoomba, and Townsville.

Treatment of Prostitutes during 1927-1928.

TABLE SHOWING NUMBER OF WOMEN TREATED THROUGHOUT THE STATE.

(From footnote it will be seen that 14 were not known to be professional prostitutes.)

Centre.				Number Remaining at 30th June, 1928.	Admitted During 1927-28.	Discharged During 1927-28.	Remaining at 30th June, 1928.
Ayr	..	..	..	..	1	1	..
Brisbane	..	..	..	10	70*	58	22
Cairns	..	..	..	..	2	2	..
Charters Towers	..	..	..	..	2	2	..
Ingham	..	..	..	1	1	2	..
Innisfail	..	..	..	..	2	2	..
Mackay	..	..	..	..	*	..	..
Rockhampton	..	..	..	..	*	..	..
Toowoomba	..	..	..	3	1†	4	..
Townsville	..	..	..	..	7	5	2
Total	..	..	..	14	86	76	24

* Brisbane figures include 32 Brisbane prostitutes, committed as result of medical examination at William street rooms, 4 prostitutes transferred from Brisbane Gaol, 1 prostitute from Mackay, 11 prostitutes from Toowoomba, and 8 prostitutes from Rockhampton, as also 14 non-prostitutes.

† 1 prostitute was treated at Toowoomba Hospital, in addition to which 11 were transferred to Brisbane for treatment. All Mackay and Rockhampton prostitutes were treated at the Venereal Isolation Hospital, South Brisbane.

Official Form F., issued by Commissioner of Public Health under section 161 of “The Health Acts, 1900 to 1922,” on persons to whom sufferers, by written statement, ascribed infection.

Metropolitan Area.—Three notices were served on females and one on a male suspect, with the result that one female was ascertained to have gonorrhœa, one was negative of venereal disease, one left the State before the time set down for her examination, and the male suspect was examined in H.M. Prison and found to be free from venereal disease.

Outside Areas.—Statements were received re four women and two men in areas outside Brisbane, and as a result of examination three females were discovered to be infected with gonorrhœa, one with syphilis, whilst no trace of venereal disease was found in the two males.

Official Form G (Regulation 9 of the Venereal Diseases Regulations) issued on persons suspected to be suffering from venereal disease.

Fifty-nine of these forms were issued, the majority of which it will be noted below were made use of to bring clinic patients, who had failed to continue treatment, to a sense of their responsibilities in this regard.

Two women in Brisbane suspected of suffering from venereal disease were served with these notices and found to be free from such disease.

Nine women attending the Department’s medical officers in Brisbane were served with notices for defaulting in treatment, and papers were sent to the Crown Law Department in three instances in which the person failed to obey the notice. Two subsequently reported and proceedings were withdrawn accordingly.

Five male prisoners released from gaol at the expiry of their civil sentences were ordered up to the clinic on Form G and one of these disobeyed; he could not be located when legal proceedings were instituted.

Four males and three females who defaulted in treatment at Inglewood, Mackay, Toowoomba, and Townsville resumed treatment on receipt of Form G.

Thirty-five male clinic defaulters reported after receipt of Form G, one who disobeyed was convicted, and fined (vide “Prosecutions” page 9).

SUMMARIES.

Official Form F.		Metropoli- tan Area.		Outside Areas.		Totals.		Official Form G.		Metropoli- tan Area.		Outside Areas.		Totals.	
		M.	F.	M.	F.	M.	F.			M.	F.	M.	F.	M.	F.
Suspects only	.. ..	*1	2	2	..	3	2	Suspects proved negative of V.D.	..	1	..	..	..	..	1
Not served..	.. ..	..	†1	..	..	..	1	Gonorrhoeal .. ..	..	1	..	..	..	..	1
Infected—								Defaulters from treatment reported back	35	8	4	3	39	11	
Gonorrhoea	.. ..	..	1	..	3	..	4	Prisoners to report at clinic	4	..	..	..	4	..	
Syphilis	.. ..	..	..	..	1	..	1	Prosecutions for breaches of Reg. 9 of V.D. Regula- tions, disobeying Form G.	1	1	..	..	1	1	
		1	4	2	4	3	8								
						11									
* Examined in gaol.		† Left State.								40	11	4	3	44	14

FOOD HANDLERS.

Action was taken in all instances where notifications showed the patient to be employed in food handling or preparation, so as to insure compliance with Regulation 14(1) of the Venereal Diseases Regulations.

Thirty cases were investigated with the following results :—

Occupation.	Nature of Disease.	Result of Departmental Action.	Occupation.	Nature of Disease.	Result of Departmental Action.
Barman ..	Syphilis ..	Discontinued calling	Fisherman ..	Gonorrhœa ..	Discontinued calling and left for N. S. W.
Barman ..	Syphilis ..	Discontinued calling and left Queensland	Grocer ..	Gonorrhœa ..	Discontinued calling
Barmaid ..	Gonorrhœa ..	Discontinued calling	Grocer ..	Gonorrhœa ..	Discontinued calling
Barmaid ..	Gonorrhœa ..	Discontinued calling and left Queensland	Grocer's assistant	Gonorrhœa ..	Ascertained to have been dismissed and unemployed
Butcher ..	Syphilis ..	Discontinued calling	Meat carter ..	Gonorrhœa ..	Discontinued calling
Butcher ..	Gonorrhœa ..	Discontinued calling	Milk vendor ..	Gonorrhœa ..	Discontinued calling
Butcher ..	Gonorrhœa ..	Discontinued calling	Milk boy ..	Gonorrhœa ..	Discontinued calling
Butcher ..	Gonorrhœa ..	Discontinued calling	Milkman ..	Gonorrhœa ..	Discontinued calling
Chinese fruiterer	Gonorrhœa ..	Discontinued ealling	Pieman ..	Gonorrhœa ..	Discontinued calling
Cook ..	Syphilis ..	Discontinued calling and left district	Storekeeper ..	Syphilis ..	Discontinued calling
Cook ..	Gonorrhœa ..	Discontinued calling	Storekeeper ..	Gonorrhœa ..	Discontinued calling
Cook ..	Gonorrhœa ..	Discontinued calling	Waitress ..	Gonorrhœa ..	Admitted to local hospital as inpatient till cured
Dairyman ..	Gonorrhœa ..	Discontinued calling	Waitress ..	Gonorrhœa ..	Admitted to local hospital as inpatient till cured
Dairyman ..	Gonorrhœa ..	Ascertained to be the owner and not actually working	Waitress ..	Syphilis ..	Discontinued calling
Fruit hawker ..	Gonorrhœa ..	Discontinued calling			
Fish hawker ..	Gonorrhœa ..	Discontinued calling			

CERTIFICATES OF CURE OR APPARENTLY FREE FROM DISEASE RECEIVED.
(a) BRISBANE AREA.

		Gonorrhœa.		Syphilis.		S. Syphilis.		Gonorrhœa and Syphilis.		Ven. Warts.		Totals.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Private doctors	.. ..	89	9	6	4	..	..	..	..	..	..	95	13
Male Clinic	.. ..	184	..	1	..	4	..	1	..	..	..	190	..
V. I. Hospital	.. ..	..	58	..	1	..	1	..	..	..	1	..	61
Other hospitals	.. ..	..	10	..	..	..	..	..	..	..	..	..	10
Departmental female cases	.. ..	..	3	..	..	..	..	..	..	..	..	..	3
Total	.. ..	273	80	7	5	4	1	1	..	..	1	285	87
												372	

CERTIFICATES OF CURE OR APPARENTLY FREE FROM DISEASE RECEIVED.
(b) OUTSIDE METROPOLIS.

		Gonorrhœa.		Syphilis.		S. Syphilis.		Gon. and Syph.		S. Chancre.		Ulcerative Granuloma.		Ven. Warts.		Total.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Private doctors	.. ..	46	2	..	..	..	..	..	..	..	..	..	..	..	..	46	2
Clinic doctors	.. ..	67	33	7	..	..	..	..	..	1	..	..	..	..	..	75	33
Hospital doctors other than at clinics	.. ..	18	9	4	..	..	..	..	..	..	..	5	3	..	..	27	12
Total for Outside Areas	.. ..	131	44	11	..	..	..	..	..	1	..	5	3	..	..	148	47
Total Metropolis	.. ..	273	80	7	5	4	1	1	..	..	..	..	..	..	1	285	87
Grand Total for State		404	124	18	5	4	1	1	..	1	..	5	3	..	1	433	134
		528		23		5		1		1		8		1		567	

SANITATION.
GENERAL.

The work in connection with sanitation has entailed considerable travelling by the Inspectorial Staff in visiting the far distant areas of the State and with few exceptions a marked improvement is reported, especially at places under the control of certificated sanitary inspectors appointed by Local Authorities. These officers being fully seized with their responsibilities recognise that inspectors of this Department on tours of inspection may at any time visit their districts when any unsatisfactory conditions found not attended to will necessarily be a matter for adverse comment and, consequently, are particularly keen in stringently carrying out their work, thereby ensuring that all notices served for the abatement of nuisances are not allowed to remain in abeyance, as was frequently the case in the past.

The Department's inspectors, who are ex-officio inspectors under the Liquor Act, have paid particular attention to the general cleanliness of hotels and the sanitary accommodation provided for the comfort of the travelling public, as well as that of boarders and employees engaged on the premises. A general improvement in such matters has resulted and complaints in this respect are noticeable by their absence.

Much assistance has been afforded, as in the past, to Local Authorities in the shape of advice and instruction in the matter of improving sanitary defects, especially in respect to the disposal of waste water, where no proper drainage facilities have been afforded.

Many instances have occurred in which the advice of this Department has been sought by private persons possessing septic installations, and who, before proceeding with the work, secured the usual sanction of the Local Authority and who later found that the effluent was causing a nuisance. The important features of soil and locality should always receive careful consideration at the hands of the Local Authority before approval is given to such installations, even though the type of tank under ordinary circumstances may be accepted as satisfactory. If this is done both expense to the owner and annoyance to neighbours will be obviated.

The same conditions also require to be exercised in respect to sumps, as these are liable to become sources of trouble owing to the soil becoming greasy through soapsuds, kitchen waste, &c., thus rendering all soil absorption impossible, with the result that the contents overflow and lodgments of foul water occur at intervals and which in turn become potential breeding grounds for mosquitoes.

The staff have faithfully rendered good service in obtaining improvements in sanitation, whilst the various Local Authorities' inspectors have co-operated fully with their efforts, with the result that old-time offensive stagnant drainage nuisances are fast disappearing.

A large portion of the Brisbane area has now been sewered and further connections are being made. It is hoped that these improvements will be hastened so that the present system of pan removal will be done away with.

The officers of the Department have carried out the following inspectorial work within the Greater Brisbane area.

General inspections	741
Written complaints	162
Verbal complaints	79
	982
Reinspections	279
Official calls	302
	581
	1,563

PLAGUE PRECAUTIONARY WORK.

The Local Authorities throughout the State are responsible for the prevention and destruction of rats within their respective areas. The Rat, Flea, and Plague Carrying Insects Prevention and Destruction Regulations, 1926, is the law governing this very important matter. The Regulations are in force in every Local Authority's area within the State.

The Government continues to employ in Brisbane a full-time and efficient gang and trained dogs. This gang is comprised of experienced hands who have had vast experience in rat-hunting operations.

The following table gives some details of the duties performed by the gang.

Poison.	1927-8.	1926-7.	1925-6.
	Lb.	Lb.	Lb.
Poison manufactured ..	144	975	2,617
Poison sold to Local Authorities ..	525	434	848
Poison sold to the public ..	640	203	1,478
Poison used for baits ..	247	238	266
Poison in stock ..	32	100	25
Total	1,444	975	2,617

Baits.	1927-8.	1926-7.	1925-6.
Baits sold to public ..	14,420	20,350	69,965
Baits sold to outside centres ..	4,850	1,657	23,350
Total	19,270	22,007	93,315

Five hundred and thirty-two 4-lb. loaves were used in making the baits. The average number of baits per 4-lb. loaf is between 900 and 950. The gang in addition to hunting operations is continually and systematically baiting river walls, wharves, and other places, as shown in the following tables:—

BAITS LAID BY DEPARTMENT'S GANG.

Place.	1927-8.	1926-7.	1925-6.
River walls	260,950	389,950	359,560
Wharves	31,700	52,500	60,000
Railway premises	83,350	104,400	85,000
Government buildings ..	46,900	43,500	36,000
Meatworks	49,800	39,250	41,000
Other premises	4,850	5,650	7,400
Total	477,550	635,250	588,960

NUMBER OF RODENTS EXAMINED BY LABORATORY.

	1927-8.		1926-7.		1925-6.	
	Rats.	Mice.	Rats.	Mice.	Rats.	Mice.
Rodents—						
Department's gangs	1,186	26	1,714	52	..	..
Council's gangs ..	43,105	2,418	34,422	1,752	..	..
Miscellaneous sources	46	3	69	2	..	..
Total	44,337	2,447	36,205	1,806	52,279	

NUMBER OF RODENTS CAUGHT BUT NOT EXAMINED.

	1927-8.		1926-7.		1925-6.	
	Rats.	Mice.	Rats.	Mice.	Rats.	Mice.
Rodents—						
Department's gangs	457	..	592	..	..	..
Council's gangs ..	5,067	165	3,683	188	..	..
Total	5,524	165	4,275	188	..	..
Rodents caught ..	1927-8.		1926-7.		1925-6	
Grand total ..	52,473		42,474		52,279	

PLAGUE.

The State has been free from plague both in humans and rodents, but the danger, which is ever present, of its introduction and very serious consequences requires the earnest consideration of every Council in Queensland.

The absolute necessity for unceasing warfare in all branches of preventive and destructive measures, of which the permanent elimination of all harbourages is the most important, cannot be too strongly impressed upon all Local Authorities under whose jurisdiction the rat-proofing of premises is placed by Regulation. During the year the rat-proofing of the retaining walls and other parts of the premises at the Railway Coal Wharves, South Brisbane, was carried out by the Government.

GENERAL INSPECTORIAL WORK.

The range of duties performed by officers of the staff is many and varied. A few of these duties which were carried out during the period under review are briefly outlined hereunder.

Health Resorts.—Seaside and picnic resorts have all been subjected to inspection. Special attention was given to the sufficiency and cleanliness of the sanitary accommodation as well as the cleanliness of the beaches. Councils are now directing more attention to the necessity of providing up-to-date accommodation for their visitors, and, although many of these resorts have not yet reached a very high standard, progress is being made in this regard. At Southport commodious sanitary and dressing shed accommodation has been erected. Improved arrangements have been provided at Burleigh Heads, and Coolangatta is contemplating further conveniences of this nature along their seafront.

Dust and Smoke Nuisance.—Investigations of complaints made to the Department regarding a nuisance due to dust and smoke from a road metal depot were carried out; the inquiries and observations revealed a very serious nuisance, and its abatement was regarded as urgent in view of the fact that a large State School was badly affected. Samples of dust were obtained from several premises and also from the depot and submitted to the Government Analyst. The report stated

that the samples from private premises were of a similar nature to those from the depot. Definite action was taken by the Council to have the nuisance abated.

Steam Cleaning of Railway Engines.—Complaint was received regarding the alleged evil effects to the health of railway engine-cleaners through the process of steam cleaning of railway engines. Inquiry was made, but results did not reveal any unfavourable points to the disadvantage of the workmen. A full report was submitted.

Pollution of Water Supply.—An inspection was made and a report furnished regarding a slaughter-yard and piggery situated in the catchment area of the Brisbane Water Supply within the Moreton Shire. It was considered that this yard was a source of contamination, and a recommendation was made to have it removed.

Disinfections.—During the year the following vessels were cyanided:—"Matthew Flinders" (twice), "Cormorant" (twice), "Bonito" (twice), "Stingaree" (twice), "Schnapper," "Seal," "Pumba," "Dugong," "Bream," "Dolphin," and "Casuarina."

Fifty railway carriages which carried infectious disease cases on way to hospitals were thoroughly disinfected immediately on arrival in Brisbane.

Pumps for disinfecting purposes were ordered for Aramac, Barcaldine, and Kingaroy Shire Councils.

Sanitary Contracts.—Contracts for services at the undermentioned places were submitted to the Department and subsequently approved:—Winton, Beaudesert, Emerald, Mitchell, Warwick, Gracemere, Tannymorel, Killarney, Mount Colliery, Atherton, Tolga, Springsure, Jandowae (Acland-Muldu-Balgowan and Collieries), Burnett Heads.

By-laws.—Bylaws from the following Councils were submitted for perusal and amendment when found necessary:—Eacham, Duaringa, and Goondiwindi.

Model Specification (Sanitary Contracts).—The model specification which was previously drawn up by the Department for the guidance of Local Authorities was revised; a few particulars which were found to be necessary since its last publication were inserted.

Sanitary Services.—New sanitary services, operated in daylight, have been established at the following townships:—Dallarnil, Quilpie, Cambooya, Tannymorel, Mount Colliery, Acland, Muldu, Balgowan, and Burnett Heads.

Loans were granted by the Treasury to Douglas, Landsborough, and Isis Shire Councils in connection with the services for these places.

Lazaret.—Ten lepers were escorted to Peel Island during the year. Five inspectorial visits were made and reports on the sanitary conditions submitted.

Hotels.—The hotels within the Greater Brisbane area have been inspected from time to time during the year.

For convenience and systematic inspection the Brisbane area was divided into three districts—viz., North Brisbane, South Brisbane, and suburban areas.

The inspecting officers' reports are as follows:—

North Brisbane.—The annual inspection for the renewal of hotel licenses in the North Brisbane area was made in co-operation with the officers of the Police Department. The dual inspection was successfully conducted without friction.

The general sanitary conditions of the hotels inspected were found to be satisfactory. Many changes and improvements have been effected since last annual inspection. The cleanliness of hotels and the general absence of vermin are noteworthy features.

The chief improvements have been in the sanitary accommodation. The old-time insanitary urinals are gradually being eliminated, and are being replaced by modern installations of white enamelled fireclay stalls with automatic flushing apparatus.

These expensive renovations have been effected without demur on the part of the owners, and very little trouble has been experienced in the endeavour to modernise the sanitary equipment of hotels. Almost every hotel is provided with ample water-closet accommodation, and where sewers are non-existent septic tanks are generally provided. The ambition is to have hotels provided with up-to-date equipment in every respect, and that a high standard of sanitation is maintained, so that these hotels will compare favourably with others in any part of the world. Such an ambition may take some time to accomplish, but the progress made to date augurs well for a speedy realisation.

The following is a tabulation of the inspections made:—

North Brisbane—

Inspection for annual renewal	..	50
General inspections	.. ..	23
Reinspections	.. ..	53
Total	.. ..	126
Number of hotels against which objections were lodged	.. ..	23
Analysis of objections.		Hotels.
Construction unsuitable	.. ..	1
Prescribed number of bedrooms not provided	.. ..	2
Kitchens unsuitable	.. ..	1
Bedrooms to be refurnished	.. ..	—
Bedrooms to be replastered	.. ..	2
Bedrooms repainted or repapered	.. ..	5
Bedding to be renewed	.. ..	1
Vermin observed	.. ..	1
Dirty cellars	.. ..	1
Defective drainage	.. ..	1
Defective closets	.. ..	1
Rat harbourages	.. ..	1
New urinal stalls required	.. ..	6
Total number of hotels	.. ..	23

These objections were lodged before the Annual Licensing Court. In two cases the objections were withdrawn on an undertaking being given to the Court that requirements would be carried out in conjunction with extensive alterations and additions which are to be commenced in each case very shortly. All other objections have received attention by the persons responsible. One hotel to which objection was raised in regard to its construction and general plan is to be entirely redesigned and modernised. The plans are now in course of preparation.

South Brisbane.—In the South Brisbane district some fifty-three hotels have been inspected and reinspected, and it is gratifying to note that the standards set by the officers are bearing fruit, and a general improvement is noted. In every instance bedrooms were thoroughly examined and bedding turned up. Where mattresses were found to be torn or dilapidated they were condemned and orders for renewal given. The same methods were applied to dilapidated furniture.

Drainage, bathrooms, and sanitary conveniences received close attention, and many orders for reconstruction of urinals were given. In hotels where reconstruction of urinals was required the stall urinals with automatic flushing arrangements were insisted on, and it is very satisfactory to note that many have now been completed. In some instances this meant the erection of entirely new structures, but nevertheless the work has been carried out satisfactorily to the benefit of the licensee and the public generally.

In thirteen premises stall urinals have already been fitted with ranges of stalls from two to seven. Two new hotels have been erected and completed in South Brisbane, and in both cases sanitary fittings of the latest type have been put in.

Suburban Areas.—In the suburban areas and Ipswich district the following hotels were examined for licensing purposes and particulars of defects were noted. Objections were lodged before the Licensing Magistrate. All complaints were remedied:—Valley 9, New Farm 1, Bulimba 1, Teneriffe 1, Breakfast Creek 1, Hamilton 1, Albion 1, Toowong 2, Indooroopilly 1, Tingalpa 1, Hemmant 1, Sandgate 4, Ipswich 20, Goodna 3, Redbank 3, Bundamba 1, Booval 1.

Inspections for annual renewal	.. ..	52
Reinspections	.. ..	25
Total	.. ..	77
Number of hotels in which defects were observed	.. ..	16

An analysis of these defects is as follows:—

		Hotels.	Defects remedied.
No. of hotels in which sufficient bedrooms not provided	.. 4	..	3
No. of hotels in which bedrooms insufficiently furnished	.. 1	..	1
No. of hotels in which bedrooms were unsuitable	.. 1	..	1
No. of hotels in which bedrooms required cleaning	.. 1	..	1
No. of hotels in which bedrooms required repairs	.. 10	..	10
No. of hotels in which bedding required renewal	.. 1	..	1
No. of hotels with dirty cellars	.. 4	..	2
No. of hotels in which sanitation was defective	.. 9	..	9
No. of hotels in which rat harbourages existed	.. 2	..	2

SANITARY SURVEY WORK.

Officers of the headquarters staff have sanitarily surveyed the following cities, towns, and places, and submitted reports on the conditions, of which many recommendations for improvement have been made. Copies of these reports were submitted to the Councils concerned for their consideration:—Biggenden, Burleigh, Burleigh West, Beenleigh, Beandserf, Bundamba, Booval, Boonah, Benarkin, Blackbutt, Coolangatta,

Currumbin, Coomera, Canungra, Caboolture, Cooroy, Cooran, Coominya, Cordalba, Childers, Degilbo, Dallarnil, Dugandan, Eidsvold, Esk, Forest Hill, Fernvale, Gympie (twice), Gayndah, Goodna, Goomeri, Gundiah, Glamorganvale, Grandchester, Gatton, Grantham, Ipswich, Ideraway, Kingaroy, Kilkivan, Kileoy, Kalbar, Laidley, Landsborough, Linville, Lowood, Lamington, Logan Village, Maryborough Murgon, Mundubbera, Mungar, Maroochydore, Marburg, Moore, Mudgeeraba, Nerang, Nanango, Nambour, Oxenford, Palmwoods, Pomona, Palm Beach, Rathdowney, Redbank, Rosewood, Southport, Toogoolawah, Tewantin, Theebine, Tambourine, Tambourine Mountain, Torbanlea, Tugun, Waterford, Woorolin, Wondai, Woolooga, Woodford, Woombye, Yarraman Creek, Yandina, Yatala.

The complete drainage scheme for the Aboriginal Settlement at Barambah has now almost been accomplished. The chief sanitary inspector who designed the scheme has also supervised its construction. This necessitated a number of visits to the settlement. The work is being carried out by the inmates. The sanitary services were reorganised and efficiently equipped.

Comprehensive sewerage schemes have been drawn up for Longreach, Roma, and Charleville. The work is being carried out in sections which will co-ordinate with the complete system for the respective areas as the work proceeds. Many long-standing drainage nuisances have now been abated.

Sewerage and drainage schemes for Atherton, Stanthorpe, and Southport are being considered. The discharge of household waste into street water-channels is a constant source of nuisance, and in this connection Orders in Council prohibiting the discharge into such channels have been applied for by Councils and approved.

Toowoomba and District.—The following places in the southern district have been subjected to sanitary inspection:—Inglewood, Texas, Dirranbandi, Thallon, St. George, Talwood, Toobeah, Goondiwindi, Yelarbon, Warwick, Wallangarra, and Stanthorpe.

The inspecting officer reports that in every instance a marked improvement in the administration of the Health Acts and Regulations thereunder by the respective Local Authorities was observed.

The general standard of sanitary conveniences together with the conduct of sanitary depôts and garbage tips stands out in striking contrast against the insanitary practices of but a few years ago. It is noted that this improvement has resulted in a corresponding decrease in the incidence of infectious disease.

The disposal of drainage from premises in the country towns still remains one of the chief sources of nuisance.

The town of Warwick for some months during the year was without the services of an inspector, and during that period the essential requirements for the protection of public health were badly neglected. The district inspector paid a special visit of inspection and fully reported on the conditions of the town. The Council failed in its duty to appoint an inspector. The Commissioner therefore exercised his authority and

filled the position. No friction has been experienced since the appointment, and the inspector is carrying out his duties efficiently and to the satisfaction of all concerned.

Toowoomba is still to the fore in public health administration. The city has an efficient sewerage scheme to which all premises in the city are being gradually connected. The water carriage system of sewage, together with the comparative freedom from the mosquito nuisance, and the steady improvement in other branches of sanitation, reflect great credit on the Local Authority and its officers.

The inspection of hotels has been carried out from time to time and also for the annual renewal of licenses. It is recorded that many past defects in sanitation have been satisfactorily remedied. The annual inspections were carried out in conjunction with the police licensing officers with every success.

RECAPITULATION OF SANITARY INSPECTIONS.

Inspections—				
General	..	..	..	1,250
Written complaints	..	..	..	7
Verbal complaints	..	..	..	30
				————— 1,287
Reinspections	..	..	..	303
Official calls	..	..	..	93
				————— 93
Total	..	..	..	1,683

ROCKHAMPTON AND DISTRICT.

In the report submitted by the inspector for the Central District the following information is given:—

During the period under review fifty-seven towns were visited and 3,687 miles were travelled in consequence. The town and townships included in the tour were—Emerald, Longreach, Mnttaburra, Ilfracombe, Barcaldine, Aramac, Jericho, Blackall, Isisford, Tambo, Alpha, Bogantungan, Anakie, Rubyvale, Sapphire town, Blair Athol, Clermont, Capella, Springsure, Comet, Blackwater, Bluff, Dingo, Duaringa.

The year has passed without any serious outbreak of infectious disease, though slight outbreaks of diphtheria and scarlet fever occurred in one or two Central-Western towns.

In April Rockhampton suffered from the effects of floods, which somewhat disorganised the sanitary services for a short time. The Council's inspector has now full control of these services, which, prior to his appointment, had been under the control of the City Engineer. The services are now well organised and efficiently controlled.

Progress is being made in the installation of fly-proof cabinets.

A certain amount of drainage work has been accomplished during the year, but what has been done falls far short of what is necessary in this regard. Drainage nuisances are numerous, and until a comprehensive scheme is designed and executed these nuisances will still form one of the chief sources of complaint.

Hotel inspection has been regularly carried out. In some cases the requirements have not been fully complied with. The sanitary surveys of the country districts show that steady progress is being made.

The area which embraces the Shires of Aramac, Barcaldine, Ilfracombe, and Longreach

is being able supervised by the local inspector. Almost every closet in Barcaldine is fitted with a flyproof cabinet, which has set up a strong defence against fly-borne diseases. The drainage of this town has been greatly improved.

Longreach is now receiving particular attention, and it is expected that the same satisfactory condition in regard to closets will soon be realised. The sewerage scheme has now been completed, and will still further improve the sanitary environment of the town.

At Aramac and Ilfracombe notable progress is being made in sanitary matters.

At Murrumbidgee the pit system is still in vogue, but the Council has been requested to have a pan removal service installed. Extensive drainage improvements have been effected at Blackall, and the sanitary conditions at Tambo, Isisford, Alpha, and Jericho have all been favourably reported on.

At Rubyvale and Sapphire town progress has only been slight, and much requires to be done to bring these townships into line.

Advancement in health matters at Emerald and Clermont has been slow. A new inspector has been appointed and it is anticipated that conditions will rapidly improve as a result of the change.

At Springsure a very high standard has been reached and is being maintained, and for a country town the interest displayed by the Council is worthy of mention.

Mount Morgan at the present time is an uncertain quantity. The closing of the mine has brought about many changes, and, as a consequence, disorganisation to some extent has taken place. Within the Fitzroy Shire efficient supervision is being exercised, with the result that sanitary matters are very satisfactory.

Health matters within the Livingstone Shire are at a high standard. The Council intends to operate a nightsoil removal service at Sandhills as soon as the question of a new depot at Emu Park is settled.

Duties under the Venereal Diseases Regulations were also carried out.

DETAILS OF INSPECTION.

Inspections—				
General	..	..	..	1,388
Written complaints	..	..	..	2
Verbal complaints	..	..	..	21
				<hr/>
				1,411
Reinspections	..	..	..	207
Official calls	..	..	..	59
				<hr/>
Total	..	..	..	1,677

MACKAY AND DISTRICT.

On account of the transfer of an officer from Cairns to Mackay in May, 1928, the period of one and a-half months only is covered by this report.

Inspections—				
General inspections	..	..	..	490
Verbal complaints	..	..	..	3
				<hr/>
				493
Reinspections	..	..	..	15
Official calls	..	..	..	175
				<hr/>
				190
				<hr/>
Total	..	..	..	683

TOWNSVILLE AND DISTRICT.

A report of a suspicious case of plague was received from the Tropical Institute; fortunately the case proved not to be plague, but the circumstances were sufficient to point to the continual danger of plague introduction.

Although our shores are guarded by the Commonwealth Quarantine Service, it is almost an impossibility for that Department to prevent rats coming ashore in cargo and by other means, consequently the State authorities must exercise close vigilance on land, and the Local Authority is required to carry out the provisions of the Rat, Flea, and Plague Carrying Insects Prevention and Destruction Regulations so as to comply with its obligations in respect to rat destruction.

The following inspections were made during the year:—

General inspections	..	..	..	1,545
Written complaints	..	..	..	17
Verbal complaints	..	..	..	70
				<hr/>
				1,632
Reinspections	..	..	..	603
Official calls	..	..	..	179
				<hr/>
				782
				<hr/>
Total	..	..	..	2,414

All the hotels in Townsville and all other centres visited were inspected, and where breaches of the Liquor Act were observed action was taken for their abatement. In many instances extensive alterations and repairs were carried out. In one particular instance the sum of £2,000 was expended in alterations for modern sanitary fittings and their installation.

CAIRNS AND DISTRICT.

Our inspector reports that through his area a decided improvement has taken place during the period under review. Councils are becoming alive to the fact that preventive work is of more value than the heavy expenditure for hospital accommodation. The district is slowly but surely becoming, to a great extent, protected from fly-borne diseases by the installation of fly-proof closet pansteads, and by the advancement in many other sanitary matters. The conduct of all sanitary services is satisfactory and well maintained.

At Babinda the Cairns Shire Council has built an incinerator which appears to be giving efficient service, and is a great advance on the burial of nightsoil in ground which is waterlogged in wet seasons.

The following towns were visited and the usual surveys made:—Edmonton (twice), Hambleton (twice), Kureen, Malanda, Woree (twice), Queerah, Gordonvale (twice), Silkwood, Stratford (twice), Freshwater (twice), Redlynch (twice), Babinda (twice), Aloomba, Mountain View, and Kuranda.

Inspections—				
General inspections	..	..	..	2,306
Written complaints	..	..	..	1
Verbal complaints	..	..	..	14
				<hr/>
				2,321
Reinspections	..	..	..	360
Official calls	..	..	..	2,100
				<hr/>
				2,460
				<hr/>
Total	..	..	..	4,781

CLONCURRY AND DISTRICT.

During the year inspections of the following townships were made:—Malbon (twice), Duchess, Dajarra (twice), Mount Isa, Kuridala (twice), Selwyn (twice), Mackinlay, Gilliat, Julia Creek, Nelia, Nonda, Maxwelton, Richmond, Quamby, Kajabbi, Dobbyn, Burketown, Einasleigh, Kidston, Forsayth, Georgetown, Croydon, Normanton, Kynuna, Makunda, Middleton, Boulia, Hamilton, and Herbert Downs.

The townships visited round Cloncurry were for the most part in fairly good order, but some of the farther distant places were rather crude in their methods of dealing with sanitation. The various Councils were advised on the best methods to adopt to bring about improvement.

The places visited in the far North had not made any attempt to have the closets made fly-proof, and the Councils were recommended to take action as a precaution against fly-borne diseases. In several instances advice was given as to the proper method of nightsoil disposal, and in all cases the advice was appreciated. Instruction was also given in many cases in the proper methods of garbage disposal most suitable to the area.

Nine hundred and eighty inspections were made during the year. Forty-four inspections of hotels were carried out for a like period, and action taken where breaches of the Liquor Act were observed.

FOOD AND DRUGS.

The metropolitan and outside areas of the State have received their full quota of attention in respect to food and drugs at the hands of the inspectorial staff. Milk in particular has been subjected to close supervision, not only from the adulteration standpoint but also from a hygienic point of view. The milk vendor now realises the importance of running his business in an efficient and cleanly manner. Experience has shown that fines for adulteration and general slack methods not only weaken public support but adversely affect the business turnover. The up-to-date vendor naturally secures additional advantage over offenders found guilty of adulteration and of not conducting their business on hygienic lines. This is particularly noticeable in the improved vehicles used for milk delivery, as well as the personal wearing apparel of those employed in the trade. The householder, however, should endeavour to assist the milk vendor in securing clean milk supplies by providing clean covered vessels to receive the milk, and thus prevent dust, &c., contaminating it immediately after delivery. Milk certainly should not be allowed to stand for a considerable period exposed to heat, flies, &c., before it is used in the home. This feature is certainly one that householders should endeavour to improve, and thereby safeguard their supply. All the advantages of a pure milk delivery are lost if contamination is allowed to take place in the home.

PASTEURISED MILK.

At the beginning of the fiscal year two companies in Brisbane were engaged in preparing and supplying pasteurised milk to the public of the metropolitan area.

One of these companies has since closed down, and at the present time one concern only caters for the Brisbane public in such connection.

The method of pasteurisation followed by this company is that known as the "holder" or "batch" process, whereby the entire body of milk is held at the required temperature for a definite period of time and immediately afterwards cooled down and bottled.

The temperature to which the milk is heated by this concern is 145 deg. Fahr., and the holding period 30 minutes.

Under the late Food and Drug Regulations of 1925 controlling the pasteurisation of milk, it was permissible to employ the following temperatures and time periods of holding in such process, viz.:—

- 149 deg. F. for a period of not less than 20 minutes.
- 165 deg. F. for a period of not less than 10 minutes.
- 170 deg. F. for a period of not less than 5 minutes.

In the 1928 Food and Drug Regulations it is, in view of more recent knowledge and experience, provided that the temperature shall not exceed 145 deg. Fahr. In these regulations the standard for pasteurised milk reads as follows:—

"Pasteurised milk is milk all of which has been heated to a temperature of at least 142 deg. Fahr. and not higher than 145 deg. Fahr. for a period of thirty minutes in pasteurising apparatus approved by the Commissioner, and which immediately after such treatment has been cooled down to a temperature not higher than 50 deg. Fahr., and then is so kept as to be protected from contamination. Pasteurised milk shall not contain any living colon bacilli nor have a bacterial count in excess of 50,000 micro-organisms per cubic centimetre."

The temperatures and time period above indicated have been established by responsible authorities throughout the world as sufficient to kill non-spore-bearing pathogenic organisms in milk, and at the same time to have no detrimental effect upon its chemical composition.

Most of the standing objections to pasteurised milk are based upon the high temperatures which originally obtained in the process, but it is now definitely established that the changes which occur depend entirely on the degree of heat applied and on the length of the heating period, and when this fact becomes more widely known and appreciated the demand for pasteurised milk is likely to increase.

Close attention has been paid by the Department's officers to the treatment of milk at the plants operating in Brisbane, and in such connection the following remarks are of interest:—

Two business concerns supplying bottled and pasteurised milk to the public were in operation in Brisbane during the period under review.

Samples of milk were taken at each stage of the process in order to isolate particular points of contamination (if any) in the progress of the milk from pasteuriser to bottle and can.

The reports of the examination by the bacteriologist reveal some very interesting features, and proved a valuable source of information to the management of the companies concerned.

The results of the bacteriological examination are as follows:—

Company No. 1.

1st sample—Mixed bulk, fresh, receiving vat	3,540,000
2nd sample—From pasteuriser (after pasteurisation)	less than 1,000
3rd sample—From bottling machine ..	47,000
4th sample—Bottle taken from delivery van returned from morning delivery	552,000

These results revealed the following facts:—

(a) That fresh milk supplied by farmers when mixed in the receiving vat gave a very high count.

(b) That the process of pasteurisation proved satisfactory, and reduced a high count down to a very low one.

* (c) That a source of contamination existed between pasteuriser and bottling machine.

†(d) That after bottling a further growth occurred, due either to badly-washed bottles or to rapid growth in the milk after bottling.

The waxed cardboard caps came under suspicion as a source of bottle contamination, but bacteriological examination of these caps gave negative results.

This firm has carried out many additions, alterations, and improvements to its plant and methods, and subsequent samples taken in the course of delivery and from customers after delivery and at the depot have all given counts less than 2,000 per c.c.

Company No. 2.

The same sectional method of sampling was also carried out at the works of this firm. Results were as follows:—

1st sample—Mixed bulk, fresh, receiving vat	3,360,000
2nd sample—From pasteuriser (after pasteurisation)	less than 1,000
3rd sample—From tap supplying bulk	less than 1,000
4th sample—From pipe into bottling machine	less than 1,000
5th sample—From bottle after bottling	less than 1,000

These results establish the following facts:—

(a) That fresh milk as received from the farmers gave a very high count and corresponds closely to the result of a similar sample from Company No. 1—viz., 3,540,000 and 3,360,000;

(b) That the whole process was being efficiently worked, and giving satisfactory results.

A second series of samples were taken, but, unfortunately, very unsatisfactory results were revealed. These results are as follows:—

1st sample—Mixed bulk, fresh, receiving vat	3,640,000
2nd sample—From pasteuriser (after treatment)	225,000
3rd sample—Tap, supplying bulk ..	559,000
4th sample—Supply pipe to bottling machine	580,000

The milk in this set of samples was not pasteurised in the first place. In view of the first

* The source of contamination was easily detected and eliminated.

† The washing, sterilising, and storage of bottles has been greatly improved with satisfactory results.

set giving such splendid counts, the reasons for the high counts in the second set can only be put down to gross carelessness in regard to the cleanliness of vat, cooler, and pipes.

Three of the four samples of milk purchased from shops, being bottled milk—labelled “Pure Pasteurised Milk”—were put up by this firm. The bacteriological results were as follows:—

(1)	10,626,000
(2)	11,088,000
(3)	4,248,000

As a result of these high counts, further bottled samples were taken direct from the factory, and, although giving a lower count than the above samples, proved that the milk was certainly not “pasteurised” milk. Examination results were:—

2 bottles ..	No delay in exam.	756,000; 684,000
2 bottles ..	24 hours delay ..	4,455,000; 4,617,000
2 bottles ..	48 hours delay ..	unfit for examination

As a result of these very unfavourable returns, the Chief Inspector of Foods and Drugs, along with an inspector, made a special visit of inspection, and had an interview with the manager. The firm closed down very shortly after this interview.

A complaint was received that a certain milk vendor was selling milk in bottles which were labelled “Pasteurised Milk.” A sample was obtained, and the analyst’s certificate showed that although the milk was up to chemical standard it was not pasteurised milk as labelled. Action is pending in this case.

Plans were submitted for the erection of a pasteurising plant at Sandgate. This necessitated a visit to that place by the Chief Inspector of Foods and Drugs and an inspector. The plans and layout of the building and plant were fully discussed, and arrangements made by the owner to make alterations to suit requirements.

ICE CREAM.

During the summer months 71 samples of ice cream were obtained from vendors in the city of Brisbane and submitted to the Bacteriological Laboratory for examination.

Of this number, 39 samples furnished bacterial counts below the prescribed maximum of 50,000 micro-organisms per cubic centimetre (19 of which were less than 1,000 per c.c.), 16 samples over 50,000 and below 1,000,000 organisms per c.c., and 16 samples yielded counts in excess of 1,000,000 organisms per c.c.

Of the specimens furnishing counts in excess of 1,000,000 the majority were procured from a series of shopkeepers who, upon inquiry, it was found had only recently obtained their supplies from the one wholesale manufacturer.

Investigation at this wholesaler’s premises disclosed the fact that the defect was due to the faulty temperature of a cold-storage chamber in which the ice cream had been kept previous to delivery to the shops. The required adjustment was made, and subsequent sampling of the product proved satisfactory.

Certain other ice-cream vendors whose counts were in excess of the bacterial standard prescribed in the Food and Drug Regulations were found not to be subjecting the mixture to the required degree of heat previous to freezing, and were accordingly advised and instructed in correct methods.

On the whole, cleanly methods of manufacture and handling were observed by our officers during their visits of inspection to ice cream factories, and implements and utensils employed in the process were found sound and sanitary.

FISH SUPPLY.

Working under the Health (Fish Supply) Regulations our inspector has supervised sales twice daily at the State Fish Market, Brisbane, and has, in addition, inspected all consignments of smoked fish arriving from overseas at the wharves. He has also maintained supervision of hawkers' and fish-dealers' carts at the market, and has paid periodical visits of inspection to fish-shops in the city area.

Unsound Fish.—During the twelve months ended 30th June our inspector has condemned and witnessed the disposal of 102 tons 2 cwt. 2 qr. and 1 lb. of assorted fish found by him upon examination to be unfit for human consumption. In addition to which 151 mud crabs (green), 136 mud crabs (dead), 31 mud crabs (undersized), and 805 sand crabs have been rejected as unfit for food.

Unsound Foods and Drugs.—During the period covered by this report members of headquarters staff have between them been responsible for the satisfactory disposal of 3 tons 7 cwt. 3 qr. 9 lb. of unsound and deteriorated foods and drugs of various kinds. In addition our officers have, after inspection, rejected as unfit for human consumption 8 tons 13 cwt. 3 qr. 25 lb. of fire and water damaged foodstocks.

PROSECUTIONS.

Forty-seven prosecutions were instituted during the year by officers of headquarters staff against sundry persons for various breaches of Part VI. of the Health Acts and of Regulations made thereunder, forty-one of which were successful, and penalties amounting to—Fines £183 12s. 6d. and costs £53 19s.—inflicted by police magistrates. The following details furnish particulars concerning the forty-one cases in which convictions were obtained:—

Adulterated milk (added water) ..	13 cases.
Milk below bacteriological standard ..	4 cases.
Adulterated liquor (added water) ..	5 cases.
Miscellaneous prosecutions ..	19 cases.

Remarks re Prosecutions.

Milk.—Of the thirteen samples of milk adulterated with added water, vendors in the Brisbane area supplied seven, Ipswich district three, and Redcliffe, Southport, and Pialba one each. The percentage of added water present in these samples ranged from 5.6 to 27.3.

Milk below Bacteriological Standard Requirements.—These were the first prosecutions of the kind in the State and the magistrate accordingly took a lenient view and inflicted light fines.

Alcoholic Liquors.—All of the prosecutions were against country hotel licensees—two at Coolangatta, two at Palm Beach, and one at Ipswich.

Miscellaneous Prosecutions.—These comprise a variety of cases, including shortweight bread, adulterated cream, falsely described soap, unsound fish, filthy premises, exposure of food to contamination, carrying water on a milk cart, selling milk without a license, obstruction of inspectors, &c.

FOOD AND DRUG SAMPLING.

A grand total of 1,792 samples of foods and drugs were obtained and submitted to the Government Chemical Laboratory during the year. Of this number 795 samples were procured officially under the provisions of the Health Acts for legal purposes, and 997 were unofficial or survey samples collected during the course of inspections for investigatory information.

These samples are dealt with in detail in the report of the Government Analyst.

SAMPLING (FOR BACTERIOLOGICAL EXAMINATION).

Milk.—Two hundred and fifty-three samples of fresh milk were procured and submitted to the Laboratory of Microbiology for examination.

Specimens other than Milk.—Two hundred and thirty samples, comprising bread, brine, cream, disinfectants, fish, horehound beer, ice cream, meat, meat paste, milk strainers, mud oysters, soda water, strawberries, water (sea), water (fresh), and yeast were also handed in for examination.

Milk Sampling (Chemical).—During the year a total of 866 samples of milk were procured and submitted to the Government Chemical Laboratory for analysis. Of this number 134 were unofficial samples obtained for survey purposes, and 732 were official samples taken for legal purposes strictly in accordance with requirements of the Health Acts.

In addition to the Brisbane city area, milk samples were also collected by our officers in Ayr, Beaudesert, Bowen, Bundaberg, Cairns, Charleville, Coolangatta, Gympie, Ipswich, Laidley, Manly and Wynnum, Maryborough, Pialba, Rockhampton, Rosewood, Sandgate, Southport, Toowoomba, Warwick, Woody Point, and Redcliffe.

On the whole, the quality of milk samples obtained this year was superior to that of last year's samples, but as this phase will be dealt with by the Government Analyst in detail in his report I shall not enlarge upon this point here.

Milk Sampling (Bacteriological).—The work of bacteriological milk sampling has been continued throughout the period under review, and as a result of the Bacteriologist's findings it has been decided to raise the bacterial standard for milk during the winter months (1st April to 30th September) from "not more than 1,000,000 micro-organisms per cubic centimetre" to "not more than 500 micro-organisms per cubic centimetre," and such provision has been inserted in the recently gazetted "Food and Drug Regulations, 1928."

Relative to the Department's operations in the field of the bacteriological examination of milk, as well as pasteurised milk, the following particulars are furnished.

Samples were procured for examination as under:—

Taken at Dairies	61
Taken at Central Depots	102
Taken at Railway Stations	20
Taken at Shops	4
Taken at Schools	2
Private purchase	2
Submitted by farmers	13
Total	204

The bacterial count of the samples is as follows:—

Organisms—per C.C.	Dairies.	Depots.	Railway Stations.	Shops.	Schools.	Purchase.	Farmers.
Under 10,000.. .. .	11	17	..	..	1	2	5
Over 10,000 and under 50,000	20	23	..	..	..	..	5
Over 50,000 and under 250,000	17	12	..	..	..	..	2
Over 250,000 and under 500,000	5	11	..	..	..	..	1
Over 500,000 and under 1,000,000	2	17	..	..	1	..	..
Over 1,000,000	6	22	20	4	2	2	..
Totals	61	102	20	4	2	2	13

204

The following is an analysis of these figures:—

DAIRIES.

Organisms—per C.C.	No.	Percentages.				Total Percentages.	Months Taken.					
Under 10,000	11	18.0	} 50.7	} 78.7	} 86.9	90.1 passed	August to November, 1927.					
10,000	20	32.7										
50,000	17	28.0										
50,000												
250,000	5	8.2	8.2	8.2	3.2							
250,000												
500,000	2	3.2	3.2	3.2	3.2							
500,000												
1,000,000												
Over 1,000,000	6	9.9	9.9	9.9	9.9	9.9 failed						
Totals	61	100.0	100.0	100.0	100.0	100.0						

RAILWAY STATIONS AND DEPOTS.

Organisms—per C.C.	No.	Percentages.				Total Percentages.	Months Taken.
Under 10,000 	17	14.0	} 32.8	} 42.6	} 51.6	65.6 passed	August to November, 1927.
10,000 	23	18.8					
50,000 	12	9.8 9.8					
50,000 							
250,000 	11	9.0 9.0 9.0					
250,000 							
500,000 	17	14.0 14.0 14.0 14.0					
500,000 							
1,000,000 							
Over 1,000,000 	42	34.4	34.4	34.4	34.4	34.4 failed	
Totals	122	100.0	100.0	100.0	100.0	100.0	

The samples taken from the dairies immediately after milking give a 90.1 per cent. pass, which is very satisfactory.

The samples taken at central depots and railway stations give a 65.6 pass, which is only fair and could be greatly improved on, as will be shown by figures given further on in this report.

At the 61 dairies which were personally visited by the inspector, the object of taking the samples aroused much interest among the farmers, and the subject of “clean milk” was discussed from every viewpoint, and enlightenment on the subject was gained by both parties. There is no doubt that personal and regular inspection is the practical and surest method of procuring a “clean milk” at the dairy.

A point often argued was the bacterial condition of the milk as drawn direct from the cow, and in order to convince a number of farmers that the teat duct is a source of bacterial addition to the milk, and that, if the first three jets of milk from each teat were omitted from the

milk-pail the count would show a considerable reduction as compared with the first jets, samples were taken at four separate dairies. The milk was received into the sterilised bottle direct from the teats (one jet from each teat comprised the sample).

The results are interesting and instructive, and reveal a very important source of bacterial contamination.

1st Jet from each Teat.	After 3 Jets drawn off.	Difference.
39,000	2,900	36,000
*124,000	300	123,000
49,000	2,300	46,000
3,200	2,100	1,100

Eleven of the thirteen samples of milk submitted direct to the Department by the farmers themselves were the result of the first sample

* Cows feeding on swampy pasture. The remarkable reduction to 300 proves that the teat is an important source which should not be overlooked by dairy farmers.

taken by the inspeector giving a high count. This personal interest on the part of these farmers showed a keen desire to supply a clean milk to the public.

Each farmer was provided with a sterilised 2-oz. bottle, and was given the necessary instructions in the correct method of taking the sample. At the same time he was informed that it was to his own benefit to submit a "true" sample, because, if the sample gave a low bacterial count, it could be used in evidence against him if the necessity arose for the Department to take any legal action at any future time.

The comparative figures are interesting, and prove that when correct methods are used clean milk can be produced without difficulty.

Sample taken by Inspector.	1st Sample, Farmer.	2nd Sample, Farmer.
2,292,000	280,000	Less than 1,000
2,436,000	Less than 1,000	
2,170,000	Less than 1,000	
4,800,000	7,000	
12,864,000	71,000	
6,656,000	66,000	23,000
2,688,000	Less than 1,000	
2,016,000	27,000	
Overgrown	20,000	

The "overgrown" count was found to have been due to two cows suffering from mammitis. These two cows were excluded from the herd, with the result that a 20,000 count was afterwards obtained.

Two of the thirteen samples were submitted by one farmer in order to ascertain the count after (a) one straining, (b) three strainings through the same wad.

The count was as follows:—

(a) One straining	..	..	..	25,000
(b) Three strainings	..	..	..	45,000

It would appear from this count that more than one straining through the same medium adds to the number of bacteria. This appears to be a very important item, and worthy of further investigation, as it is not a regular practice to change the filtering medium. It would appear from this test that any bacteria entangled in the filtering wad are washed through into the milk-can with each successive supply.

Although the tests from the dairies gave very satisfactory results, there is a big drop in the results of the tests of samples taken at central depots and railway stations. On first thoughts it would appear that long transit was responsible, but the following figures disprove the point:—

Distance by Rail.	Count.
44 miles ..	8,000.
40 " ..	6,000 ; 14,000 ; 44,000.
38 " ..	Less than 2,000 ; 28,000 ; and 40,000.
37 " ..	9,000 ; 12,000 ; 28,000 ; 54,000.
35 " ..	Less than 2,000 ; 2,000 ; 8,000 ; 26,000 ; 28,000 ; 46,000 ; 47,000.
32 " ..	6,000 ; 38,000 ; 42,000.
23 " ..	8,000 ; 10,000.
22 " ..	10,000 ; 18,000.

(Each count represents one sample.)

Special inquiries were made into the methods used to obtain such satisfactory results. It was ascertained that only strict regard to thorough cleanliness and the immediate cooling of the milk were the methods adopted. There is, therefore, no secret process, no extra trouble, and no extra cost. Farmers not supplied with coolers may argue that a cooler would be extra cost, but such an argument will not stand, as a cooler is an essential utensil for the dairy and should not be put down as an "extra."

High bacterial counts are the result of "neglect." In other words, the farmer is not giving proper attention to the essential details of his job.

Prosecutions for excessively high bacterial count were undertaken. These were the first cases of their kind, and being so, high penalties were not asked for. Particulars are as follows:—

	Fines.	Costs.	Fees.
	£ s. d.	s. d.	£ s. d.
Dairy Firm A (4 cases)	4 0 0	14 0	8 8 0
Dairymen B	1 0 0	3 6	2 2 0
Dairymen C	1 0 0	3 6	2 2 0
Dairymen D	1 0 0	3 6	2 2 0
Total	£7 0 0	24 6	£14 14 0

OYSTERS.

In the months of September and November last the question of the possibility of pollution of oysters on banks in the vicinity of Luggage Point sewage outfall was considered by this Department.

In consequence, numerous samples of water, mud, and oysters were obtained by its officers from the river and walls in close proximity to such outfall as well as from certain oyster banks in the vicinity.

As was anticipated, specimens of water taken upstream from the sewage outfall, and of mud from both east and west sides of same, furnished evidence of contamination, whilst the fluid in an oyster obtained from a near-by bank also contained organisms of the coli group indicative of sewage pollution.

At a later stage a more comprehensive series of specimens comprising mud of certain oyster banks in the vicinity of the outfall, oysters from such banks, and of water over the layings were obtained and submitted to the bacteriologist and to the Government Analyst.

Bacteriological investigation and chemical analysis disclosed that water samples obtained from over three banks were contaminated with organic matter of animal origin, and bacteriological examination revealed colon bacilli in oyster specimens from three banks, and in one sample of mud.

In view of these findings, representations were made to the Marine Department as to the desirability of immediately applying the provisions of section 25 of "The Fish and Oyster Act of 1914" in the matter of prohibiting the taking of oysters from such grounds.

The Marine Department is, I understand, acting in the matter and is selecting fresh banks in a safer location.

Liquor Inspection.—The supervision of the sale of liquor in warehouses, hotels, and licensed dealers' premises, as well as the control of warehouses and shops selling wine, has been regularly and systematically maintained during the year. Spirits on sale at hotels—draught and proprietary—have been tested at all hotels visited, at wholesale warehousemen's and bottlers' premises, and also at bars on racecourses and showgrounds.

The officer in charge of this work at headquarters reports that the standard of quality of such lines throughout the fiscal period has been high, and concludes that the Department's continuous supervision has apparently had a salutary effect.

Our officer states that, in place of the haphazard methods of reducing spirits by the retailer of old, this operation is now usually performed in an accurate and business-like manner by wholesale merchants, and the liquor delivered by them to the retail vendors ready for dispensing over the bar without further manipulation.

Spirits offered for sale have on the whole been found of good quality and true to label, and, in the few instances where evidence of tampering with proprietary brand liquors has been observed, cautions administered appear—in the light of subsequent visits paid to the offenders' premises—to have had the desired effect.

Beer pipes made wholly or in part of lead have as the result of the Department's action been entirely eliminated from hotel bars, and the practice now is to use only pipes made of block tin or to draw beer direct from the cask.

Mechanical glass-washers of approved design have been installed by many licensees, and I trust the time is not far distant when the provision of such appliances will be insisted upon in all hotel bars of cities, and in towns of any size or importance.

Wholesale Warehouses.—Merchants' wholesale warehouses have been regularly visited and stocks inspected by our officers. Business premises in this class are mostly structures of modern type and design, well managed and with goods so arranged and kept as to permit of ready and efficient inspection.

The officer in charge of this section of the Department's activities reports that during the year he has had very little to complain of, and that foods stocked have been of good quality, and labelling conditions satisfactory.

Certain large consignments of canned fish which he was compelled to reject upon the Analyst's Certificate were unsound upon arrival at this port, and were in wholesalers' hands only a few days when detected.

Dried fruits have been of better quality and less evidence of insect invasion noticeable.

Considerable work was entailed in this section during portion of the year in dealing with fire and water damaged stock as the result of the destruction of a large Brisbane warehouse by fire.

Of the goods retrieved from fire and water and submitted for inspection, a quantity totalling in weight 8 tons 5 cwt. 3 qr. 25 lb. were rejected by our officers as unfit for human consumption.

Food Containers.—Local manufacturing concerns engaged in canmaking have received visits of inspection and samples of the various materials used in such process obtained for examination. At one of such factories special inquiry was entailed owing to the death of an employee as the result of opening a drum of rubber-solution used in the jointing of fruit tins. Since this occurrence a less dangerous substance has been substituted for such purposes.

Grocers' stores and general shops have been kept under regular surveillance, and stocks, labelling, and storage conditions observed.

Storekeepers generally display desire to comply with the Food and Drug Regulations, and have given our officers very little trouble.

The regulation prohibiting the display of canned foods outside the shop-fronts of retail stores has been enforced, and has, I consider, had some effect in reducing losses from spoilage of such goods.

In most instances effective provision has been made by shopkeepers for the protection of such lines as butter, cheese, bacon, and smallgoods, and some of the contrivances provided by the larger stores are of an ingenious and highly sanitary design.

Food manufacturing concerns, including aerated water and cordial factories, bakehouses, breweries, cake and biscuit factories, confectionery works, canning factories, cold stores, ice works, &c., &c., have been visited as often as possible, and attention has been paid to auction marts, bond and free stores, and hawkers' carts and barrows.

Food packing businesses, including tea and coffee packers, cereal packers, and other businesses of a similar character, have received visits, and methods and labelling conditions in such have been scrutinised.

River wharves and stores have received periodical visits, and certificates have been issued by our officers covering unsound and deteriorated foods discharged from shipping.

The inspection of all cured fish landed in Brisbane from South African and British ports has been a routine duty of our officers.

Restaurants, cafés, and refreshment-rooms have received all the attention it has been possible to give them with a small staff, and have on the whole been found well kept and equipped. Business premises of this class are being rapidly improved, and special attention has been paid to the construction and arrangements of the kitchens, pantries, and serveries.

Underground kitchens are being eliminated, and where such have been approved have either been of a satisfactory type in the matter of natural ventilation and lighting or have been required to provide approved mechanical exhaust systems of ventilation.

Special attention has been paid by our officers to the provision and maintenance of sound crockery and glassware, and wherever cracked, chipped, or broken cups or glasses are observed by our officers their immediate removal and replacement is insisted upon.

FOOTWEAR.

The provisions of the Footwear Regulations relating to the proper branding of boots and shoes the soles of which do not consist entirely of leather have been strictly enforced by officers of headquarters staff during the year under consideration.

In such connection some sixty-six premises of boot and shoe manufacturers, importers, and retail sellers have been visited and the stocks kept therein inspected.

Work in the factories was also supervised by our officers during the assembling of goods, and samples obtained of materials and brands, which are filed at this office for purposes of reference.

As the result of such inspections, satisfactory compliance with the regulations was reported, no unbranded or improperly marked goods being detected by our officers.

TOOWOOMBA.

The officer in charge of the Department's sub-office at Toowoomba reports that during the year under review the activities of this office have been considerably curtailed owing to the absence therefrom for a period of seventeen weeks upon long-service and recreation leave, during which time the office was closed.

Food and drugs work, however, received close attention during the time he was on duty, and he reports that a reasonable compliance with the laws controlling the preparation and handling of food for sale can be considered as prevailing in this area.

Milk.—Sixty-four samples of milk were submitted for chemical analysis—fifty of which were obtained from milksellers trading in Toowoomba, and fourteen from vendors at Warwick.

Perusal of the figures furnished by our officer serve to indicate that the Department's activities with respect to the milk supply of Warwick have had the desired effect, for the milk supply in question was returned by the analyst as 100 per cent. pure for the current year.

Altogether the number of milk samples submitted from Toowoomba sub-office is lower than last year, and this is attributable to greater vigilance being deemed unwarranted by virtue of the phenomenally good season experienced, with a correspondingly almost unlimited supply of milk at the disposal of sellers of same.

Poisons.—Our officer reports that "The Poisons Regulations of 1924" are reasonably complied with in his district, and that where defects have been detected during inspections a subsequent "Default Notice" has effected the desired compliance.

One prosecution under the Poisons Regulations was undertaken; the complaint being re the sale of cocaine without the written prescription of a registered medical practitioner being presented. The defendant in this case was a registered pharmaceutical chemist, and a substantial fine was imposed by the magistrate.

It is understood that the Pharmacy Board called upon this chemist to show cause why his name should not be struck off the roll of registered pharmacists, but he was finally exonerated from blame on account of the transaction upon which the prosecution was based having been conducted by an employee in his absence.

Tours.—Outside the city of Toowoomba the departmental officers paid visits of inspection to business premises at Helidon, Murphy's Creek, Witcott, Greenmount, Greenmount East, Cambooya, Meringandan, Gomoran, Haden, Goombungee, Crow's Nest, Pechey, Hampton, Highfields, Cabarlah, Jondaryan, Texas, Dirranbandi, Thallon, St. George, Talwood, Toobeah, Goondiwindi, Yelarbon, Inglewood, Warwick, Stanthorpe, Wallangarra, and Clifton.

CHARLEVILLE.

The Department's officer at Charleville has during the fiscal year carried out the work of food and drugs inspection upon the usual lines; and, in addition to attending to such matters in and around Charleville, has visited the following places, viz.:—Morven, Adavale, Langlo, Roma, Muckadilla, Mitchell—upon which journeys he travelled some 602 miles.

At each of these towns all business premises handling food or drugs for sale were visited and inspected by our officer.

As the result of these inspections the inspector reports that improvement in the handling of foodstuffs is apparent, more especially in connection with vehicles used in food delivery. Grocery stocks were also found as a whole very carefully kept.

In connection with his supervision of liquors the inspector reports that comprehensive tests have disclosed general adherence to standards, and that in one instance only did he find it necessary to prosecute.

Seventeen samples of milk were obtained in Charleville and submitted to the Government Analyst, and it is pleasing to record that our officer's investigations and advice to dairymen have borne good fruit, and the standard of milk has been well maintained.

ROCKHAMPTON.

The officer in charge of Rockhampton sub-office reports that work in the food and drugs sections of his inspectorial duties has again been heavy owing to the ever-increasing number of food-handling establishments within the central division under his supervision.

During the twelve months under consideration, however, this officer reports noticeable improvement in the manufacture, storage, and handling of foodstuffs generally.

To attain the present standard the inspector has found it necessary to devote a considerable portion of his time to advising traders and in planning show-cases and means of protection of shop windows.

Wholesale warehouses, factories, wharves, and retail shops have been regularly inspected, together with their contents.

Bakers' carts, milk carts, and various other vehicles in which food for sale is transported have been inspected, and the work of liquor testing, bread weighing, and the taking of samples for analysis have been carried out as occasion has offered.

The standard of quality of the various lines of foodstuffs has been high during the year, as is indicated by the big decrease in the amount of food it has been found necessary to remove from sale in this area as unfit for human consumption.

Inspections under the Poisons Regulations have disclosed no defects of a serious character.

Places Visited.—Outside of the City of Rockhampton the inspector has visited the following places, viz.:—Mount Morgan, Hartley, Marmor and Bajool, Raglan, Mount Lareombe, Gladstone, Many Peaks, Miriam Vale, Avondale and Jandarin, Murray Creek, Rosedale, Lowmead and Bororen, Calliope, Baralaba and Rannes, Wowan, Emu Park, Yeppoon, St. Lawrence, Carmilla, Yaamba, Caves, Emerald, Muttaborra, Longreach, Ilfracombe, Barcaldine, Aramae, Jericho, Blackall, Tambo, Isisford, Alpha, Bogantungan, Ruby Vale, Sapphire Town, and Anakie, Blair Athol, Clermont, Capella, Comet, and Blackwater, Springsure, Bluff and Dingo, Duaringa, and Marlborough. The total number of miles travelled on tour were 3,687.

Unsound Food.—During the fiscal year unsound food amounting to 11 ewt. 2 qr. 11 lb. was removed from sale and satisfactorily disposed of.

Samples Submitted.

Milk	57
Draught whisky	2
Draught rum	1
Headache powders	1
Total	61

Prosecutions.—One prosecution for adulterated milk (added water), in which a fine of £8 and £1 4s. 6d. costs was imposed by the magistrate, and one prosecution for adulterated whisky, in which a fine of £4 and costs 3s. 6d. was inflicted, were undertaken by our officer during the year.

CLONCURRY.

The provisions of the Food and Drug Regulations in the town of Cloncurry have been efficiently carried out during the year, and visits of inspection were made to the following places:—Malbon, Duchess, Dajarra, Mount Isa, Kuridala, Selwyn, Mackinlay, Gilliat, Julia Creek, Nelia, Nonda, Maxwellton, Richmond, Quamby, Kajabbi, Dobbyn, Burketown, Einasleigh, Forsayth, Kidston, Georgetown, Croydon, Normanston, Kynuna, Makunda, Middleton, Hamilton, Boulia, and Herbert Downs.

Concerning business premises visited, the inspector states that the hotels were mostly in clean and good condition, but that orders had to be issued in several cases for fly-proofing of kitchens, dining-rooms, and closets, and a few other defects.

Liquor testing was carried out at all hotels and licensed stores at places visited. Bread weighing showed that the standard weight was being maintained.

Unsound Foods.—Tinned fish 42½ lb., tinned jams 26¼ lb., and tomatoes 140 lb. were disposed of as unfit for human consumption.

Poisons Regulations.—Patent medicines containing Schedule No. 1 poisons and other drugs which unlicensed storekeepers are prohibited from handling under the Poisons Regulations were found in several stores, but as these were being sold in ignorance of the law the provisions of the said regulations were explained to such offenders and an undertaking accepted that in future prohibited articles would not be stocked.

TOWNSVILLE.

In the City of Townsville many food-handling premises have been brought into conformity with the Food and Drug Regulations—namely, restaurants, cafes, and hotels. A few worthy of special mention are four restaurants where kitchens and pantries were reconstructed, one large cafe in which the bakehouse, kitchen, and ice cream room were demolished and reconstructed in concrete, several hotels the kitchens and pantries of which were altered and repaired, and several premises in which proper drainage facilities were provided.

Many of the hotel cellars in Townsville have been a continuous source of trouble owing to faulty drainage. Close attention was given to these premises, and it was found an almost impossible task for proprietors to keep their hotel cellars dry, notwithstanding daily attention. Finally they were filled in with sand, and “weep” holes were made in the wall on the outfall according to the contour of the land. This has proved a decided success, having removed numerous breeding grounds for mosquitoes and the objectionable musty odour that emanates from such conditions.

Apart from his duties in and around the City of Townsville, our officer has paid visits to Giru, Brandon, Ayr, Home Hill, Bowen, Collinsville, and Charters Towers, at each of which places he performed the work of food and drug supervision.

At Charters Towers the inspector made a special tour of dairies with the officer of the Local Authority, and reports that during the past three years these dairies have received close and strict supervision, with the result that to-day many of them would compare favourably with the best in the State. In the course of his general routine of duties strict attention has been paid to foods, liquors, and poisons held or offered for sale.

Prosecutions.—Four prosecutions were successfully conducted during the year and penalties, totalling fines £23 and costs £7 imposed by the Police Magistrate.

CAIRNS.

The food and drugs section has been kept up to standard; stocks were found to be clean, sound, in good condition and properly labelled on inspection by our officer.

Premises on the whole were reported in fair order and show a decided improvement from year to year. This is remarkable in view of the depression in trade and shows that the traders of North Queensland anticipate a revival and are steadily preparing for it.

The poisons section was found to be in good order, very few infringements of the law in such connection being reported.

The following places were visited during the year:—Edmonton, Hambleton, Kureen, Malanda, Woree, Queerah, Gordonvale, Silkwood, Stratford, Freshwater, Redlynch, Babinda, Aloomba, Mountain View, and Kuranda.

Food Sampling.—The Cairns officer submitted for chemical analysis 35 samples of milk, 1 sample of rum, and 1 sample of well water. Unsound food to the extent of 1 ton 1 ewt. 26½ lb. was removed from sale and disposed of to our officer's satisfaction.

POISONS.

The provisions of the poisons regulations—more particularly those relating to the sale of scheduled poisons by unauthorised persons, the proper keeping, labelling, and packing of poisons, and the misuse of food containers in such connection—have been enforced by all officers of the Food and Drug Division during the course of their inspections of business premises in the City of Brisbane and in country districts.

As a result, I am in a position to state that much more attention is paid to such matters by traders now than formerly, and it is the exception for our inspectors to discover serious breaches.

Minor breaches of the regulations are made the subject of written notices requiring correction within a stated time, and these notices are invariably found complied with upon reinspection.

At the expiration of the annual period under review the Department had upon its books the following list of dealers licensed under the Regulations to sell poisons:—

General dealers in poisons	203
Dealers in photographic poisons	8
Dealers in agricultural and horticultural poisons	269
Wholesale dealers in poisons	102
Chemists' assistants	4
Total	586

PEEL ISLAND LAZARET.

The following table shows changes that have occurred amongst the inmates of the Lazaret during the past year:—

Inmates.			1st July, 1927.	Admitted.	Re-admitted.	Discharged.	Died.	Remaining 30th June, 1928.
White males	..	..	29	4	..	3	..	30
White females	..	..	8	3	1	1	1	10
Coloured males	..	..	33	..	1	1	2	31
Coloured females	..	..	5	1	..	..	..	6
Totals	..	..	75	8	2	5	3	77

Five patients were discharged conditionally on their reporting themselves for medical and bacteriological examination at stated intervals.

Discharged patients are supplied with certain drugs to be taken as a preventive against recurrence of the disease.

At the Lazaret, Chaulmoogra Oil and its derivatives—Anti Leprol, Sodium Hydnocarpate and Alepol—are used.

There were two patients re-admitted during the year.

The number of inmates at the Lazaret remains from year to year practically the same, and this is the case as regards the number of white and coloured inmates.

NURSES REGISTRATION BOARD.

The work carried out by the board has proved entirely satisfactory, even though it has considerably increased in volume on account of the holding of sectional examinations.

The advantages of such examinations to the trainees are generally recognised, as thereby nurses are able to devote more time to the special subjects for which they are examined each year instead of, as in the past, taking all sections of their training at the final examination. Moreover, training schools prefer this method, as it follows that only the services of a few trainees are lost at the one time to the hospitals during the period of examinations.

The number of examining centres has been increased and examinations are now held at all training schools; this prevents long absences through travelling to and from given centres, as heretofore, and is also a saving in the matter of travelling expenses to the nurses.

The arrangements in connection with reciprocity mentioned in last year's report have now materialised and the vexatious delays to oversea nurses coming to this State and desiring registration no longer occur.

Sectional examinations for nurses in training were held in September, when 748 candidates from 51 training schools presented themselves for examination, the results being as follows:—

First section	159 passed
	137 failed
Second section	237 passed
	50 failed
Third section	125 passed
	40 failed

Of those who failed, 194 sat for the post examinations in November with the following results:—

First section	57 passed
	65 failed
Second section	20 passed
	12 failed
Third section	29 passed
	9 failed

The final examination for nurses training under the 1912 Regulations was held in conjunction with the sectional examinations, when 17 nurses presented themselves, of whom 15 were successful in passing the complete examination, whilst the remaining two failed in only one paper, and which they were successful in passing at the post examination.

The usual half-yearly examinations for midwifery and mental nurses were held in September and March, the results being as follows:—

September Examination.	
Midwifery section	41 passed
	4 failed
Mental section	12 passed
	21 failed
March Examination.	
Midwifery section	48 passed
	5 failed
Mental section	12 passed
	21 failed

The success of the midwifery candidates can be attributed to the fact that in nearly all cases candidates for midwifery certificates now hold general trained nurses' certificates.

Section 207.—Thirty-two (general 13, midwifery 18, mental 1) nurses who produced evidence that they had received satisfactory training, and furnished certificates of having passed a qualifying examination, were registered.

Section 208.—One nurse produced evidence that she was following the calling of a nurse during the years 1909, 1910, and 1911, and was registered on the approval of the Home Secretary.

LABORATORY OF MICROBIOLOGY AND PATHOLOGY.

The work of the laboratory for the year continues to prove satisfactory. Medical practitioners freely avail themselves of its services in having specimens examined, and this is also the case in respect to public hospitals. The promptitude exercised in furnishing results is much appreciated by all concerned, as it materially assists medical men in arriving at an early diagnosis of their cases. The bacteriological tests conducted in respect to milk samples have proved of much assistance in controlling and ensuring cleanly methods of dealing with milk supplies, and have been helpful to those persons engaged in the dairying industry in the proper conduct of their business.

The services of the Laboratory have been fully availed of by the police authorities as regards medico-legal specimens obtained in criminal cases resulting in the officer in charge having to attend at courts throughout the State to give evidence; this at times tends to hamper the expeditious furnishing of reports on general specimens. The work conducted by the staff has been efficiently performed and is deserving of its full quota of praise.

The total number of specimens received numbered 82,115, a decrease of 5,678 on those of last year, this decrease was due to a great decline in the number of cultures received for the diphtheria bacillus, as last year outbreaks of diphtheria in Bundaberg and Ipswich necessitated the swabbing of the schools in those places. There is a marked decrease in the number of urines and faeces received for bacillus typhosus; this decrease is reassuring, as it points to a decrease in the number of typhoid cases.

The following tabular statement shows the source of the specimens received for examination by the Laboratory:—

Specimens from—	Medical Practitioners.	Hospitals.	Councils and Institutions.
Within the Brisbane area ..	92	6	5
Outside the Brisbane area ..	72	50	38

Referring to the number of rodents examined, an increase of 6,773 is noted on that of last year.

This increase taken on its face value appears very satisfactory, but it does not necessarily follow that an increase in the number destroyed signifies less rats in the city. If the number of rats destroyed this year represents an increase on those of last but gives a lower percentage of the total rat population it is to be deplored.

Cultures and swabs supplied to the Commonwealth Laboratories were as follows:—Rockhampton 3,744, Toowoomba 3,456, Townsville 5,472.

Plague.—The number of rodents destroyed during the year shows an increase of 6,773 of the 46,784 received. All were examined, but in none of them was the plague bacillus found. All rats received were classified as follows:—

Rattus Norvegicus	27,780
Rattus Rattus Rattus	2,949
Rattus Rattus Alexandrinus	6,420
Hydromys Leucogaster	2
Unclassifiable (very young rats) ..	7,186
Mus Musculus	2,447

Ten rats examined showed the presence of rat leprosy.

Spleen smears from rats in northern towns showed, in some places, an increase, while in others, a decline is noted; but in none of them was the plague bacillus found.

Diphtheria.—There was a very marked decrease in the number of swabbings submitted for examination:—12,706 as against 25,794 for last year; but the number in which the bacillus was found was a percentage of 18.7 compared with 15.2 of last year.

Venereal Disease.—A slightly decreased number of smears was submitted for the examination of the gonococcus, and the number in which the coccus was found shows a percentage of 6.8. The blood sera examined for the Wassermann reaction showed an increase, and the number giving a positive reaction was an increase over that of last year.

Tuberculosis.—A decreased number of sputa was examined for the tubercle bacillus, and the number in which the bacillus was found shows a percentage of 23.5.

Leprosy.—An increased number of smears was examined for the bacillus lepræ, but the majority of these were from persons suffering from the disease—patients of the Lazaret.

Typhoid.—A very marked decreased number of bloods was examined for Widal's agglutination, and the number positive shows a percentage of 27.4. The number of urines and faeces also shows a marked decrease.

Vaccines.—An increased number of auto-genous vaccines from sputa, urines, pustules, &c., were prepared during the year.

Miscellaneous.—The number of miscellaneous specimens which include waters, disinfectants, milk, ice creams, &c., show in some cases a very marked increase.

REPORT ON SPECIMENS RECEIVED IN LABORATORY
DURING THE YEAR ENDING 1927-28.

Examination.	Health and Hospitals.	Private Prac- titioners.	Total.
Diphtheria—			
Cultures	10,445	2,261	12,706
Virulent tests	10	8	18
Direct smears .. ..	..	4	4
Gonorrhœa—			
Smears	7,960	1,236	9,196
Complement deviation test	207	2	209
Syphilis—			
Wassermann reaction ..	1,048	396	1,444
Typhoid—			
Widal reaction	29	44	73
Urine	68	25	93
Fæces	83	35	118
Vaccines—			
Fæces .. ..	..	2	2
Prostatic fluid .. ..	..	2	2
Urine	5	4	9
Pus	2	3	5
Teeth	1	1	2
Cultures .. ..	..	4	4
Organisms—			
C. S. Fluid	3	3	6
Urine	12	10	22
Pus	1	1	2
Teeth	1	..	1
Pleural Fluid	1	..	1
Smears	6	1	7
Blood	1	..	1
Lochia .. ..	..	1	1
Sputum	6	2	8
Cultures .. ..	..	2	2
Fæcal discharge	1	..	1
Brine	4	..	4
Milk	3	..	3
Examination—			
Bread	1	..	1
Fish (rolled)	2	..	2
Fish (whiting)	1	..	1
Horehound beer	1	..	1
Soda water	3	..	3
Waters	65	..	65
Sea water	10	..	10
Meat	1	..	1
Meat paste	1	..	1
Oysters	15	..	15
Mud	5	..	5
Strawberries	2	..	2
Yeast	1	..	1
Fæces	1	..	1
Milk (count)	253	..	253
Milk (T. B.)	36	..	36
Milk (blood)	1	..	1
Milk strainers	2	..	2
Ice creams	66	..	66
Cream	1	..	1
Sterility—			
Seals from bottles	2	..	2
Water	1	..	1
Disinfectant—			
Coefficient	8	..	8
Medico-Legal—			
Blood stains	8	..	8
Seminal stains	6	..	6
Tuberculosis	218	194	412
Leprosy	810	87	897
Hookworm	21	18	39
Dysentery .. ..	..	1	1
Differential count (blood) ..	5	..	5
Malaria .. ..	..	2	2
Pernicious anæmia	2	1	3
Totals	21,446	4,350	25,796

EXAMINATION OF RATS AND MICE FOR PLAGUE.

Rodents, received from—	Rats.	Mice.	Total.
Department of Public Health	1,186	26	1,212
Brisbane City Council ..	43,105	2,418	45,523
Miscellaneous	46	3	49

Rodents Destroyed by Brisbane City Council (not examined).

5,067 Rats 165 Mice.

Rat Smears received during the Year.

Maryborough	5,258
Cairns	846
Gympie	1,044
Bundaberg	932
Ipswich	1,008
Mackay	437
Douglas	10

9,535

Grand total 82,115

Requisitions received during the year .. 615

CULTURE MEDIA PREPARED IN THE LABORATORY DURING
THE YEAR 1927-28.

Ordinary Agars—	Total.
Deep	150
Small slopes	542
Large slopes	125
	817
Ordinary Broth—	
Large tubes	324
Small tubes	390
Bottles	11
Broth (disinfectant)	487
Litres	6
	1,218
Glucose Broth—	
Tubes	25
	25
Serum Cultures—	
Ox serum slopes	32,035
Human serum plates	44
	32,079
McConkey's Medium—	
Tubes	51
	51
Conradi-Drigalski—	
Tubes	24
	24
Brilliant Green Medium—	
Plates	304
	304
Sugars—	
Lactose	310
Salacine	24
Saccharose	70
Glucose	130
Levulose	100
Mannite	40
Maltose	40
Galactose	97
Adonite	96
Dulcitol	39
Inulin	95
Erythrite	38
Amygdalin	35
Arabinose	36
Dextrin	34
Raffinose	95
Sorbitol	35
	1,314
Double Lactose—	
Tubes	48
Bottles	7
	55
Treble Lactose—	
Bottles	9
	9
Eyle Salt Peptone Water—	
Bottles	14
Tubes	121
	135
	36,031

ADMINISTRATION.

The policy of a Health Department should be to develop a knowledge of sanitation along well assured and tried lines. Sound administration in this respect requires the securing of protection against outbreaks of disease by accurate investigations and preventive measures, also the education of the public by every available method so as to displace ignorance and apathy as well as to enlist the whole-hearted co-operation of the community.

Disease cannot well be suppressed immediately it makes its appearance, but it must be the endeavour of a Health Department to take measures to prevent its occurrence by exercising precautionary measures—such as securing a safe water supply, the elimination of breeding places of flies and mosquitoes, the protection of food-stuffs, and better hygienic conditions. To fit those persons desirous of filling positions as inspectors, courses of instruction in technical sanitation have been carried out during the year. These comprise systematic lectures and practical field demonstrations at places of sanitary interest.

In many instances candidates who secured certificates by examination as sanitary inspectors under the auspices of the Royal Sanitary Institute of Great Britain continued their studies in preparation for the Sanitary Science Examination. Two examinations were held during the twelve months for the first-named certificate and one in Sanitary Science, and upon the successful results of the latter examination field officers of the staff obtained advancement in respect to promotion, consequently officers recognised that in order to keep themselves abreast of the work of the Department it was essential for them to continue their studies so as to enable them to efficiently carry out their ever-increasing duties.

As far as the provisions of the Health Acts and Regulations are concerned, nothing as regards health work has been neglected, and I desire to express my appreciation of the work of each officer of the staff.

Dr. John Irwin Moore retired from office on the 30th June after sixteen years of valued service to the State. Much credit is due to the late Commissioner for the health conditions now existing in Queensland, for, by his foresight, he linked up practically all the State with a chain of qualified inspectors who have closely carried out the provisions of the Health Acts and Regulations thereunder, and thus have been the means to a large extent of checking the spread of disease, and especially typhoid fever.

A public farewell was tendered to Dr. Moore in the City Hall, South Brisbane, where expressions were given of his valuable services by the Acting Home Secretary, members of the medical

profession, the Departmental staff, representatives of many branches of the business community, and the Health Inspectors' Association.

STAFF.

The personnel of the head office staff consists of the following officers:—Commissioner of Public Health, Health Officer, Secretary, Senior Clerk, three clerks, one record assistant, two typistes, a staff nurse, two chief inspectors, eight inspectors, one assistant to inspectors, and two messengers.

In addition seven inspectors are stationed at outside centres. The staff of the Laboratory consists of an assistant bacteriologist, a second assistant bacteriologist, one assistant to bacteriologist, one assistant to bacteriologist (on probation), one attendant, a typiste, and a glass cleaner.

Five part-time medical officers attend to the venereal diseases work, also a part-time chemist, and one lay attendant. A matron, a nurse, as well as a cook-laundress, are stationed at the Venereal Isolation Hospital, at which the medical officer attends regularly. In addition, there are part-time medical officers at outside centres in connection with venereal work.

There is also a part-time medical officer in connection with the pulmonary tuberculosis bureau.

The Lazaret staff consists of a superintendent, an assistant, a nurse, a housekeeper, four cooks, and four attendants.

The rat gang comprises a foreman and seven men for rat and disinfecting work.

Before concluding this report I desire to express my sincere thanks for the valuable assistance rendered to this Department by the Government Analyst, who has on all occasions furnished valuable advice upon matters referred to him in connection with Foods and Drugs. The Police Department has also rendered valued service in carrying out inquiries in connection with venereal disease defaulters, as well as making all necessary investigations under the Poisons and other Departmental Regulations. The assistance of the police officers has to a large extent facilitated the administrative work of this Department, and for which service I have to record my appreciation.

In like manner I desire to thank the Crown law officers for their valuable advice on all matters appertaining to framing of amendments, as well as for the assistance rendered in conducting prosecutions for breaches of the Health Acts and Regulations.

I am, &c.,

JOHN COFFEY, F.R.C.S., D.P.H.,

Acting Commissioner of Public Health.

Appendix A.

GOVERNMENT CHEMICAL LABORATORY.

Brisbane, 1st August, 1928.
The Commissioner of Public Health, Brisbane.
SIR,—I have the honour, in accordance with section 31 of “*The Health Acts, 1900 to 1922,*” to submit the following report of work done in the Government Chemical Laboratory for the

Department of Public Health during the year 1927-1928. The number of samples examined during this period was 1,792, a decrease of 395 samples on the work of the previous year. The following table gives a summary of the work done:—

TABLE I.

Food or Drug.	Total Number of Samples.	Passed.	Failed.
Beverages and cordials	61	41	20
Cereal preparations	14	10	4
Condiments	15	13	2
Confectionery	12	11	1
Essences	24	17	7
Fats	14	10	4
Fish	32	14	18
Fruit (preserved)	15	10	5
Jam and honey	26	21	5
Meat and vegetables.. .. .	53	25	28
Milk, fresh	866	735	131
Milk preparations	90	69	21
Oils	13	12	1
Soap	25	16	9
Spirituuous liquors	47	15	32
Vinegar	7	4	3
Wine	4	3	1
	1,318	1,026	292
Disinfectants	20		
Drugs and medicines	106		
Infants' foods	15		
Toilet preparations	12		
Water	34		
Miscellaneous	287		
	1,792		

In the case of several foods, such as fish, meat, and spirituous liquors, where a very large proportion of the samples received were condemned, these samples were taken by inspectors as being close to or below the standard, and were therefore submitted for analysis. In such cases the proportion of samples condemned is no indica-

tion of the proportion of that particular food on the market which fails to reach standard.
Of the total number of samples of foods and drugs submitted, 795 were legal samples taken by inspectors strictly in accordance with the provisions of the Health Acts. The results are shown in Table II.:—

TABLE II.

Nature of Sample.	Number of Samples.	Passed.	Failed.
Cream	11	7	4
Milk	732	625	107
Paint	3	..	3
Soda water	10	3	7
Spirituuous liquors	33	9	24
Miscellaneous	6	1	5
	795	645	150

The following table records details in regard to the 732 legal samples of milk:—

TABLE III.

Place.	Number of Samples.	Passed the Standard.	Genuine but below the Standard.	Deficient in Fat.	Adulterated with Water.	Average Percentage of Added Water.	Unfit for Exact Analysis.
Ayr	7	..	..	3	4	9	..
Beaudesert	4	3	..	1	..	..	..
Bowen	5	1	..	4	..	..	..
Brisbane North	244	206	5	14	17	6	2
Brisbane South	102	88	6	3	5	5	..
Bundaberg	12	12	..	..	..	..	..
Cairns	35	32	2	1	..	..	..
Charleville	17	15	..	2	..	..	..
Coolangatta	7	6	..	1	..	..	..
Gympie	21	20	..	1	..	..	..
Ipswich	22	21	..	1	..	..	..
Laidley	1	..	..	1	..	..	..
Manly and Wynnum	25	25	..	..	..	..	..
Maryborough	15	15	..	..	..	..	..
Pialba	5	3	1	..	1	5	..
Rail (Roma Street)	44	36	8	..	..	..	..
Rockhampton	58	41	4	1	2	5	10
Rosewood	3	3	..	..	..	..	..
Sandgate	25	22	1	2	..	..	..
Southport	8	7	..	..	1	9	..
Toowoomba	50	48	..	1	1	18	..
Warwick	14	14	..	..	..	..	..
Woody Point and Redcliffe	8	7	..	..	1	19	..
	732	625	27	36	32	7	12

TABLE IV.
SUMMARY OF TABLE III.

	Number of Samples.	Percentage.
Adulterated with water	32	4.4
Deficient in fat	36	4.9
Unsuitable for exact analysis	12	1.6
Genuine but slightly below the standard	27	3.7
Passed the standard	625	85.4
	732	100.0

The following table shows the milk position as compared with the four previous years:—

TABLE V.

Year.	Number of Legal Samples.	Percentage Failed.	Average Percentage of Added Water.
1923-24	525	16	14
1924-25	697	9	10
1925-26	1,027	13	8
1926-27	941	11	14
1927-28	732	9	7

The improvement in the proportion of adulteration of the milk supply this year, as compared with previous years, is due possibly more to the good season than to any other factor. It is, of course, becoming increasingly difficult to water milk without detection, more especially since the carrying of water on the cart was made an offence under the Health Acts. The dishonest vendor now has to depend mostly upon surreptitious watering of the milk from the householder's tap as he has found it too dangerous to water his bulk supply. There is still a marked absence of any excessive amount of visible dirt in the samples received. The usually accepted limit of two parts by volume of moist extraneous sediment in 100,000 parts of

milk was never reached during the year, the majority of samples recording less than one part. These results are supported by the bacteriological figures, and when taken in conjunction with them they indicate that the Brisbane milk supply is cleaner than it used to be, though not yet an ideal milk supply.
The proportion of lead present in soda water from soda water fountains during the year was not nearly so large as in the previous year, the improved position being due to the elimination of all lead containing solder from the carbonators and treatment of the water before carbonation. The position, however, will not be entirely satisfactory until the soda water is entirely free from lead.

It is interesting to note that the Government Analyst for Palestine, in his report for 1926, mentions the presence of lead in soda water from fountains in Palestine, the lead being apparently derived from the lead cooling pipe attached to each fountain. The earbonating chamber in the fountains there consists of tin-plated copper, whereas in Queensland this chamber in most of the fountains is composed of tin, the joints and dome until reently having been soldered with a solder containing about 40 per cent. of lead.

Of twenty-one samples of mineed meat examined eleven contained an exeessive amount of sulphur dioxide preservative, the excess over the maximum amount allowed by the Regnlation ranging from 8.5 to 568 per cent.

It was discovered during the year that in certain districts cabbages were being dusted with arsenate of lead from six to eight times during their growth. In wet seasons, when insects are so destructive, arsenate of lead is used freely. One cabbage was examined which had been dusted six times in the first two months of growth, and none at all for the last month. The six outer leaves which are generally discarded were sampled, and the proportion of arsenie determined. Arsenie was found to be present in the proportion of sixty parts per million, or 42/100ths grains per lb. ealculated on the undried leaves. A section aecross the remainder of the cabbage was found to contain four parts per million of arsenie, or 28/1000ths grains per lb., caleulated on the undried leaves. Lead was found to be present on both the outer and inner leaves, but the proportion was not determined. Samples from other districts contained up to 240 parts per million (= 1.68/100 grains per lb.) in the four outer leaves and up to six parts per million (= 42/1000 grains per lb.) in the seetion of the cabbages after exeluding the four outer leaves. Lead was present in all samples. The facts indicate that such heavy dressing with arsenate of lead is a distinet menaee to health when it gives resnlts such as those found in the samples received. It is obviously desirable that an investigation should be made as to the pre-sence of lead and arsenie in those fruits and vegetables which are treated with dust or sprays containing lead or arsenie.

Among the drugs and medicines examined were curieones, vegetable pills, neuritis tablets, cough mixtures, atophan, exetex, Glanber's salt, headache powders, snake bite cure, ointments,

oxygen tonic, laxettes, Angier's emulsion, uro-dyne, Sal hepatica, terperion, glycephal, fruit salines, electric essence, cascara, herbal mixtures, borax and boric acid, and catarrh preparations.

Fifteen samples of borax obtained from grocers, drapers, and chemists were examined, and found to contain lead and arsenie much in excess of the British Pharmacopœia limits (arsenie five parts per million, and lead five parts per million) for these metals in purified borax.

The following are the results obtained from them:—

Lead, parts per million.	Arsenie, parts per million.
30	54
15	103
70	138
20	142
10	152
30	182
10	186
25	202
20	210
20	226
15	250
30	275
10	280
10	364
15	450

Of thirty samples of borie acid examined only five conformed to the British Pharmacopœia standard, the remainder containing up to 300 parts of lead per million and thirty parts of arsenie, the British Pharmacopœia limits for these impurities being twenty-five parts and five parts respectively per million.

A few samples of paint were received during the latter part of the year which indicate that some painters, despite the prohibition of the use of lead paints on veranda railings, gates, or fences to which children under fourteen have access, are still using lead paint for painting such plaees.

The miscellaneous samples included wrapping paper, maple syrup, malt, boots, urine, sputum, necklaces, paint, westolite, saltpetre, hair, desie-cated cocoanut, wyandotte, cloudy ammonia, junket tablets, hydrometers, human liver, vermin destroyers, bottle eaps, meat pies, bovril, rito, and gallstones.

Yours faithfully,

J. B. HENDERSON,
Government Analyst.

